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ABSTRACT

Fourteen appendixes to the fiscal year 1975 final evaluation report of the Northwest Regional Educational Laboratory (NWREL) Experience-Based Career Education (EBCE) program are contained in this volume to provide supportive descriptive and technical information. Appendixes A to J relate to the Community Experiences for Career Education--(CE)2--program in Tigard, Oregon, one of four EBCE programs. These appendixes are titled as follows: Summary of Student Descriptive Data, MANOVA and MANCOVA Summaries, Description of Instruments, Tabulated Responses to the (CE)2 Student End of Year Questionnaire, (CE)2 Student Midyear Interview Summary Tabulated Responses to the (CE)2 Staff Questionnaire, Additional (CE)2 Case Study Student Profiles, Evaluation of (CE)2 Case Study Student Projects and Products, Explorations and Learning Levels of (CE)2 Students, and Behavioral Objectives of the (CE)2 Competencies. The remaining appendixes provide information regarding the EBCE implementation process and include the following: Tabulated Responses to the EBCE Implementation Training Workshop Questionnaire, Tabulated Responses to the Nonapplicant Student Questionnaire, Characteristics of Five EBCE Pilot Sites for FY '76, and Tabulated Responses to the EBCE Materials Usage Questionnaire. (TA)

APPENDICES TO THE FY 75

FINAL EVALUATION REPORT OF THE NWREL

EXPERIENCE-BASED CAREER EDUCATION PROGRAM

Contained in this volume are 14 appendices to the FY 75 Final Evaluation Report of the NWREL Experience-Based Career Education (EBCE) program. These appendices provide supportive descriptive and technical information. Appendix A to J relates to the Community Experiences for Career Education, $(CE)_2$, program in Tigard, Oregon. The remaining appendices provide information regarding the EBCE implementation process.

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LIST OF APPENDICES

Appendix A

SUMMARY OF STUDENT DESCRIPTIVE DATA

Described in Appendix A are data collected from the student application and from a pretest questionnaire administered to control group students. Data are organized with the variable (question) in the first column, responses in the second column, and the number and percent of the various groups of students making each response in the remaining columns.

Variable	Value	Group									
		Experimental		Preselected		Return Seniors		$(CE)_2$ Total		THS Control	
		N	%	N	%	N	%	N	%	N	%
Sex	Male	16*	52	5	39	11	61	32	52	15	60
	Female	15	48	8	61	7	39	30	48	10	40
Grade	11	21	68	9	69	-	-	30	48	18	72
	12	10	32	4	31	18	100	32	52	7	28
Race	White	31	100	13	100	17	94	61	98	23	96
	Oriental	-	-	-	-	1	6	1	2	1	4
Father's Occupation on Hollingshead's SES Scale	Executive	1	4	3	23	-	-	4	7	1	5
	Manager	5	18	4	31	1	7	10	18	2	10
	Administrator	4	15	3	23	6	40	13	24	6	32
	Clerical	6	22	-	-	2	13	8	15	-	-
	Skilled	4	15	2	15	5	33	11	20	7	38
	Semi-Skilled	6	22	-	-	1	7	7	13	2	10
	Unskilled	1	4	-	-	-	-	1	2	1	5
	Housewife/ Don't Know	-	-	1	8	-	-	1	2	-	-
Mother's Occupation on Hollingshead's SES Scale	Executive	3	10	-	-	-	-	3	5	-	-
	Manager	1	3	-	-	-	-	1	2	1	4
	Administrator	2	7	2	15	2	12	6	10	-	-
	Clerical	6	20	6	46	4	24	16	27	5	20
	Skilled	1	3	1	8	1	6	3	5	1	4
	Semi-Skilled	1	3	-	-	1	6	2	3	4	18
	Unskilled	1	3	-	-	-	-	1	2	1	4
	Housewife/ Don't Know	15	50	4	31	9	52	28	46	12	50

* In some cases the total numbers of responses across variable do not agree because of incomplete data. Percentages are computed for the number of cases in each group on each variable.

Variable	Value	Group									
		Experimental		Preselected		Ret. Srs.		(CE)$_2$ Total		THS Control	
		N	%	N	%	N	%	N	%	N	%
Student's First Occupational Choice on Hollingshead's SES Scale	Executive	2	7	2	17	1	6	5	8	1	5
	Manager	8	26	-	-	1	6	9	15	1	5
	Administrator	5	17	5	41	2	13	12	19	7	35
	Clerical	5	17	3	25	5	31	17	27	2	10
	Skilled	9	30	2	17	5	31	16	26	9	45
	Semi-Skilled	1	3	-	-	1	6	2	3	-	-
	Unskilled	-	-	-	-	-	-	-	-	-	-
	Housewife/ Don't Know	-	-	-	-	1	6	1	2	-	-
Student's Second Occupational Choice on Hollingshead's SES Scale	Executive	4	16	2	17	-	-	6	11	1	6
	Manager	3	12	4	33	2	14	9	18	4	23
	Administrator	6	24	2	17	2	14	10	20	3	18
	Clerical	4	16	2	17	2	14	8	16	2	12
	Skilled	3	12	2	17	4	29	9	18	4	23
	Semi-Skilled	4	16	-	-	2	14	6	11	2	12
	Unskilled	1	4	-	-	-	-	1	2	-	-
	Housewife/ Don't Know	-	-	-	-	2	14	2	4	1	6
Father's Education	Elementary	-	-	-	-	1	10	1	2	-	-
	Some HS	5	17	-	-	1	10	6	11	2	8
	HS Graduate	8	27	3	23	-	-	11	21	5	21
	Some College	10	33	6	46	4	40	20	38	10	42
	College Grad	3	10	3	23	2	20	8	15	4	17
	Some Grad Work	1	3	-	-	-	-	1	2	-	-
	Adv. Degree	-	-	-	-	-	-	-	-	2	8
	Don't Know	3	10	1	8	2	20	6	11	1	4
Mother's Education	None	1	3	-	-	-	-	1	2	-	-
	Elementary	1	3	-	-	-	-	1	2	-	-
	Some HS	1	3	-	-	2	20	3	6	3	13
	HS Graduate	12	40	9	69	3	30	24	15	12	52
	Some College	8	27	4	31	1	10	13	24	7	30
	College Grad	2	7	-	-	-	-	2	4	-	-
	Some Grad Work	3	10	-	-	-	-	3	6	-	-
	Adv. Degree	1	3	-	-	-	-	1	2	-	-
	Don't Know	1	3	-	-	4	40	5	9	1	5
Student's Planned Formal Education	Drop Out	-	-	-	-	-	-	-	-	-	-
	HS Graduate	9	29	3	23	7	41	19	31	8	35
	2-Yr. College	12	39	6	46	6	35	24	40	11	47
	3-Yr. College	4	13	-	-	3	18	7	11	2	9
	College Grad	5	16	2	15	1	6	8	13	2	9
	Prof. Training	1	3	2	15	-	-	3	5	-	-

Variable	Value	Group									
		Experimental		Preselected		Ret. Srs.		(CE) 2 Total		THS Control	
		N	%	N	%	N	%	N	%	N	%
Student's Long Range Goals*	Full Time Work	8	26	5	39	7	39	20	32	6	25
	Apprenticeship	4	13	1	8	4	22	9	15	4	17
	Military	1	3	-	-	2	11	3	5	1	4
	Tech. School	3	10	4	31	1	6	8	13	4	17
	Junior College	9	29	5	39	4	22	18	29	9	38
	4-Yr. College	8	26	5	39	2	11	15	24	3	13
	Part Time Work	11	35	4	31	3	17	18	29	8	33
	Other	7	23	1	8	3	17	11	18	3	13
	Don't Know	6	19	-	-	-	-	6	10	8	33
Reading Enjoyment	No	2	6	3	23	3	17	8	13	3	12
	Sometimes	17	55	3	23	10	56	30	48	11	46
	Usually	12	39	7	54	5	28	24	39	10	43
Number of Pamphlets, Brochures and Magazines Read	None	1	3	1	8	-	-	2	3	1	4
	1-5	1	3	-	-	4	24	5	8	5	21
	6-10	6	19	2	15	7	41	15	25	1	4
	11-20	9	29	1	8	1	6	11	18	7	29
	21-30	3	10	3	23	2	12	8	13	2	8
	30 or more	11	36	6	46	3	17	20	33	8	34
Number of Books Read	None	-	-	1	8	1	6	2	3	-	-
	1-2	7	23	2	15	6	33	15	24	8	36
	3-5	7	23	2	15	3	16	12	19	5	23
	6-10	8	25	3	23	6	33	17	28	5	23
	11-20	3	10	3	23	1	6	7	11	2	9
	20 or more	6	19	2	15	1	6	9	15	2	9
Newspaper Reading	No	5	16	2	15	3	17	10	16	2	8
	Semi-Weekly	16	52	1	8	10	55	27	44	13	54
	Weekly	10	32	10	77	5	28	25	40	9	38
Newspaper Sections Read	Sports	12	39	8	62	4	22	24	39	7	29
	Fashion	6	19	5	39	3	17	14	23	4	17
	Front Page	20	65	11	85	14	78	45	73	20	83
	Comics	25	81	11	85	14	78	50	81	22	92
	Editorial	5	16	1	8	2	11	8	13	3	13
	Columnists	4	13	2	15	3	17	9	15	1	4
	Other	10	32	3	23	5	28	18	29	8	33

*Some students indicated multiple goals.

Variable	Value	Group									
		Experimental		Preselected		Ret. Srs.		(CE)$_2$ Total		THS Control	
		N	%	N	%	N	%	N	%	N	%
Number of High School Activities Last Year (or Prior to Entering (CE)$_2$	0	14	45	5	39	12	66	31	50	14	59
	1	9	29	3	23	4	22	16	25	5	21
	2	5	16	3	23	1	6	9	14	2	8
	3	2	7	2	15	1	6	5	8	1	4
	4	1	3	-	-	-	-	1	2	1	4
	5 or more	-	-	-	-	-	-	-	-	1	4
Number of High School Activities Planned This Year	0	19	61	3	23	15	83	37	60	15	63
	1	5	16	5	39	2	11	12	19	4	17
	2	2	7	2	15	1	6	5	8	2	8
	3	5	16	2	15	-	-	7	11	2	8
	4	-	-	1	8	-	-	1	2	1	4
Number of Community Organizations	0	22	71	8	61	16	89	46	74	19	79
	1	5	16	3	23	2	11	10	16	4	17
	2	4	13	1	8	-	-	5	8	1	4
	3	-	-	1	8	-	-	1	2	-	-
Number of Hobbies	0	-	-	-	-	1	6	1	2	1	4
	1	2	7	3	23	5	28	10	16	-	-
	2	3	9	4	31	6	33	13	21	6	25
	3	14	45	4	31	4	22	22	35	8	33
	4	9	29	2	15	2	11	13	21	9	38
	5	2	7	-	-	-	-	2	3	-	-
	6	1	3	-	-	-	-	1	2	-	-
Past Work Experience (For Pay)	Yes	23	77	12	92	13	72	48	79	19	83
	No	7	23	1	8	5	28	13	21	4	17

All students in the FY 75 student applicant pool and all returning seniors were asked to rate the importance of seven preselected reasons why they applied for admission into the $(CE)_2$ program. These ratings were then averaged and converted to a rank ordering of reasons why students in each group applied. These rankings (with "1" being "most important") are displayed in Table 1.

Table 1

RANK OF REASONS FOR APPLYING TO $(CE)_2$

Reason	Group				
	Experimental	Preselected	Ret. Srs.	$(CE)_2$ Total	THS Control
More Freedom	5	4	4	4-5	4
Choose Own Learning Style	2	3	2	3	3
Learn About Careers	1	1	1	1	2
Didn't Like School	4	5-6	5-6	4-5	5
Prepare for a Job	3	2	3	2	1
Bored with School	6	5-6	5-6	6	6
$(CE)_2$ Is Easy	7	7	7	7	7

A short section of the student questionnaire dealt with student knowledge about career planning and about trends in the job market. These items were obtained from an instrument used in a nationwide study (Prediger, Roth and Noeth, 1973) involving over 9000 eleventh grade students. The questions, and a summary of the responses for each group and for the national sample, are given below.

Experimental	Returning Seniors	Preselected	Control	CWE	National Sample

Which one of the following is the best way to begin career planning?

1. [ ] Look at what is available on the job market
2. [ ] Take tests to find out what you should do
3. [*] Consider what it is you want out of a job
4. [ ] Read as many job descriptions as you can find

69.2**	50.0	75.0	60.0	55.2	64.0

* Correct response

** Numbers indicate the percent of each group choosing the correct response.

Experimental	Returning Seniors	Pre-Selected	Control	CWE	National Sample

What will the labor force probably be like ten years from now?

1. ☐ Most jobs will require 4 or more years of college
2. ☒ There will be fewer jobs for unskilled workers
3. ☐ There will be more jobs for high school dropouts than there are now
4. ☐ There will be fewer jobs for technical workers

50.0	57.1	72.7	47.6	60.7	54.0

Most persons remain in the same job throughout their adult lives. Agree ☐ Disagree ☒

42.3	71.4	38.5	54.5	74.2	39.0

Few women work outside of the home after marriage. Agree ☐ Disagree ☒

84.6	78.6	69.2	72.7	77.4	70.0

Less than one-third of all job openings require a college degree. Agree ☒ Disagree ☐

44.0	30.8	30.8	36.4	53.3	47.0

Most people have the ability to do well in any job if they set their minds to it. Agree ☐ Disagree ☒

23.1	14.3	38.5	4.5	27.6	30.0

There is only one "right job" for a person in terms of his abilities. Agree ☐ Disagree ☒

84.6	78.6	100.0	90.9	83.9	83.0

The unemployment rate of 20 year olds in the labor market is usually less than the rate for other adults. Agree ☐ Disagree ☒

64.0	71.4	61.5	60.0	70.0	57.0

The State Employment Service Office provides information about job openings and job training programs. Agree ☒ Disagree ☐

92.3	92.9	100.0	85.7	83.9	95.0

Experimental	Returning Seniors	Pre-selected	Control	CWE	National Sample
Apprentices are paid while they learn.				Agree ☒	Disagree ☐
73.1	85.7	84.6	77.8	90.0	82.0
The English and math skills of freshmen are about the same from one college to another.				Agree ☐	Disagree ☒
62.5	64.3	53.8	55.0	51.7	48.9

Appendix B

MANOVA AND MANCOVA SUMMARIES

This appendix lists summary charts of the multivariate analyses of variance and covariance that were run on selected data. Data in the tables are identified by code numbers as described below:

CTBS #1: MANCOVA comparing experimental and control group posttest scores on reading comprehension, arithmetic concepts and arithmetic applications using pretest scores as the covariates.

CTBS #2: MANCOVA comparing posttest scores on all five CTBS subtests of all the $(CE)_2$ students using pretest scores as the covariates.

CTBS #3A: MANCOVA comparing the CTBS posttest scores (with pretest as covariates) of those students who participated in the Individualized Learning for Adults (ILA) mathematics program with those students who did not participate.

CTBS #3B: MANCOVA as in #3A comparing students who participated in ILA communications with those who did not.

CTBS #4: MANCOVA comparing the three $(CE)_2$ subgroups on all CTBS subtests (with pretests as covariates).

CTBS #5: MANOVA comparing the pretest reading comprehension, arithmetic concepts and arithmetic applications scores of those control group students who dropped out of school during the year with those who did not.

SD #1: MANCOVA comparing posttest scores of the experimental and control groups (with the pretest as covariate) on the Semantic Differential.

SD #2: MANCOVA comparing posttest Semantic Differential scores of the total $(CE)_2$ group using the pretest scores as covariates.

SD #3: MANCOVA comparing the three $(CE)_2$ subgroups on all Semantic Differential scales using the pretest scores as covariates.

SD #4: MANOVA comparing the pretest Semantic Differential scores of those control group students with those who did not.

Staff Ratings #1: MANCOVA comparing the posttest staff ratings of all $(CE)_2$ students on seven behavioral scales using the pretest scores as covariates.

Staff Ratings #2: MANCOVA comparing the staff ratings of the three $(CE)_2$ subgroups on the seven behavioral scales.

PSM #1: MANCOVA comparing the posttest scores on the work, self-reliance and identity scales of the Psychosocial Maturity Scale (PSM) of the experimental and control students using the pretest scores as covariates.

PSM #2: MANCOVA comparing posttest PSM scores of all the $(CE)_2$ students using the pretest scores as covariates.

PSM #3: MANCOVA comparing the PSM posttest of the three $(CE)_2$ subgroups using the pretest scores as covariates.

PSM #4: MANOVA comparing the PSM pretest scores of those control group students who dropped out of school with those who stayed in .

SDS #1: MANCOVA comparing the posttest SDS scores of the experimental group and control group using the pretest as the covariates.

SDS #2: MANCOVA comparing the posttest SDS scores of the $(CE)_2$ students with the students in the Cooperative Work Experience program using the pretest scores as covariates.

SDS #3: MANCOVA comparing the posttest SDS scores of the three $(CE)_2$ subgroups using the pretest scores as covariates.

SDS #4: MANCOVA comparing the posttest scores on the SDS of the $(CE)_2$ students using the pretest scores as covariates.

Each table contains the number of subjects (n) with the multivariate F-test ratio (M-F) and probability (p) value below it. In addition, the univariate F-test ratio and the step-down F-test ratio with their p values are listed for each of the multiple dependent variables.

The means expressed in each table are posttest scores adjusted for pretest scores except in the analyses comparing control stayins with control dropouts and the analyses of $(CE)_2$ posttest scores with pretest scores as covariates. In these latter casees, the means are observed means.

For the analyses of the $(CE)_2$ student groups, the experimental students were group 1, the returned seniors were group 2 and the preselected students were group 3 when considering the test of Linear and Quadratic trends.

	Adjusted Means					
		Reading	Arithmetic		Study Skills	
	n	Comprehension	Concepts	Applications	References	Graphics
CTBS #1						
Experimental	30	603.4	559.1	560.6		
Control Group	12	585.6	550.7	576.4		
F test		<1	<1	1.09		
p<		N.S.	N.S.	.303		
M-F/Step-down	<1	<1	<1	1.81		
p<	N.S.	N.S.	N.S.	.187		
CTBS #2						
Pretest $(CE)_2$	51	597.5	584.7	577.7	592.2	627.5
Posttest $(CE)_2$	51	637.9	600.5	595.2	613.0	642.5
F test		12.68	3.34	3.33	<1	1.09
p<		.009	.074	.075	N.S.	.303
M-F/Step-down	3.13	12.68	1.44	<1	<1	<1
p<	.017	.009	.236	N.S.	N.S.	N.S.
CTBS #3A						
ILA-Math	36	658.8	620.7	607.6	623.0	649.7
No ILA-Math	15	642.2	621.4	626.6	660.4	690.2
F test		<1	<1	<1	2.56	3.12
p<		N.S.	N.S.	N.S.	.117	.084
M-F/Step-down	1.65	<1	<1	1.15	2.88	3.28
p<	.169	N.S.	N.S.	.289	.097	.078
CTBS #3B						
ILA-Communication	24	604.5	577.2	558.5	587.8	618.4
No ILA-Comm.	27	663.6	617.1	625.1	629.7	659.1
F test		7.25	5.69	10.87	2.72	2.64
p<		.010	.022	.002	.106	.112
M-F/Step-down	4.49	7.25	4.74	8.19	<1	<1
p<	.002	.010	.035	.007	N.S.	N.S.
CTBS #4						
Returning Seniors	10	636.0	628.7	585.0	616.8	623.5
Experimentals	29	646.3	598.2	610.4	625.3	652.1
Preselected	12	658.7	625.6	617.5	644.5	682.9
Linear Trend						
F test		<1	3.15	<1	<1	<1
p<		N.S.	.083	N.S.	N.S.	N.S.
M-F/Step-down	<1	<1	2.93	<1	<1	1.20
p<		N.S.	.094	N.S.	N.S.	.280
Quadratic Trend						
F test		<1	1.15	2.03	<1	3.76
p<		N.S.	2.90	.162	N.S.	.059
M-F/Step-down	1.26	<1	1.37	2.01	<1	2.10
p<	.302	N.S.	.249	.164	N.S.	.155

	Adjusted Means					
	n	Reading Comprehension	Arithmetic		Study Skills	
			Concepts	Applications	References	Graphics
CTBS #4 (cont.)						
Two dF test						
F test		<1	2.24	1.01	<1	2.21
p<		N.S.	.119	.371	N.S.	.122
M-F/Step-down	1.07	<1	2.26	1.03	<1	1.65
p<	.395	N.S.	.117	.365	N.S.	.205
CTBS #5						
Control Stayins	11	541.4	530.1	534.5		
Control Dropouts	9	592.9	568.3	601.7		
F test		1.10	1.36	4.23		
p<		.308	.259	.054		
M-F/Step-down	1.28	1.10	<1	2.41		
p<	.314	.308	N.S.	.140		

	Adjusted Means							
	n	Me	Community Resources	Adults	School	Learning	Work	Decision Making
SD #1								
Experimental	29	57.07		54.02	57.65	59.72	56.45	
Control Group	12	58.86		53.03	53.83	57.48	56.80	
F test		1.09		<1	1.56	<1	<1	
p<		.304		N.S.	.220	N.S.	N.S.	
M-F/Step-down	<1	1.09		<1	1.648	<1	<1	
p<	N.S.	.304		N.S.	.208	N.S.	N.S.	
SD #2								
Pretest $(CE)_2$	50	55.10	51.52	51.90	45.52	56.88	57.62	51.94
Posttest $(CE)_2$	50	58.14	56.58	53.48	57.34	58.58	56.42	51.70
F test		11.61	17.69	10.08	7.71	20.33	5.54	2.23
p<		.002	.001	.003	.008	.001	.023	.143
M-F/Step-down	6.14	11.61	10.42	3.49	1.41	6.23	<1	<1
p<	.001	.002	.002	.069	.242	.017	N.S.	N.S.
SD #3								
Returning Seniors	10	62.60	58.44	55.48	57.10	54.88	55.49	49.79
Experimental	29	57.57	58.44	52.56	57.95	60.96	57.57	53.24
Preselected	11	57.66	56.81	54.09	56.74	59.83	57.24	50.92
Linear Trend								
F test		<1	<1	<1	<1	1.08	<1	1.32
p<		N.S.	N.S.	N.S.	N.S.	.304	N.S.	.257
M-F/Step-down	<1	<1	1.03	<1	<1	1	<1	<1
p<	N.S.	N.S.	.316	N.S.	N.S.	N.S.	N.S.	N.S.
Quadratic Trend								
F test		3.13	1.30	<1	<1	3.87	<1	<1
p<		.085	.262	N.S.	N.S.	.056	N.S.	N.S.
M-F/Step-down	1.24	3.13	2.29	<1	<1	3.23	<1	<1
p<	.310	.085	.138	N.S.	N.S.	.081	N.S.	N.S.
Two dF test								
F test		1.60	<1	<1	<1	2.25	<1	<1
p<		.214	N.S.	N.S.	N.S.	.119	N.S.	N.S.
M-F/Step-down	<1	1.60	1.47	<1	<1	1.74	<1	<1
p<	N.S.	.214	.243	N.S.	N.S.	.190	N.S.	N.S.
SD#4								
Control Stayins	11	57.00		56.09	51.27	62.55	62.91	
Control Dropouts	11	53.27		50.18	44.45	56.36	58.09	
F test		<1		1.54	1.85	2.81	1.60	
p<		N.S.		.229	.189	.109	.221	
M-F/Step-down	<1	<1		<1	<1	1.25	<1	
p<	N.S.	N.S.		N.S.	N.S.	.280	N.S.	

	Adjusted Means							
	n	1 Knows	2 Appli	3 Demon	4 Initi	5 Assum	6 Condu	7 Under
Staff Ratings #1								
Pretest $(CE)_2$	50	2.87	2.71	3.03	2.74	2.91	2.84	3.01
Posttest $(CE)_2$	50	3.35	3.27	3.33	3.19	3.36	3.21	3.59
F test		5.05	3.32	6.27	7.28	4.28	<1	8.98
p<		.030	.076	.016	.010	.045	N.S.	.005
M-F/Step-down	3.00	5.05	<1	2.02	1.12	<1	6.48	4.01
p<	.014	.030	N.S.	.163	.296	N.S.	.015	.053
Staff Ratings #2								
Returning Seniors	9	3.60	3.46	3.50	3.45	3.58	3.34	3.64
Experimental	29	3.30	3.34	3.29	3.03	3.32	3.10	3.67
Preselected	12	3.48	3.20	3.53	3.54	3.55	3.52	3.58
Linear Trend								
F test		<1	<1	<1	2.63	<1	2.18	<1
p<		N.S.	N.S.	N.S.	.113	N.S.	.148	N.S.
M-F/Step-down	1.84	<1	2.87	<1	2.99	<1	<1	4.33
p<	.112	N.S.	.098	N.S.	.092	N.S.	N.S.	.043
Quadratic Trend								
F ratios for univariate, multivariate and step-down tests all <1								
Two dF test								
F test		<1	<1	<1	1.48	<1	1.11	<1
p<		N.S.	N.S.	N.S.	.240	N.S.	.339	N.S.
M-F/Step-down	<1	<1	1.47	<1	1.52	<1	<1	2.21
p<	N.S.	N.S.	.242	N.S.	.233	N.S.	N.S.	.126

	Adjusted Means										
	n	Work	Self-Reli.	Iden.	Comm.	Role	Trust	Social Comm.	Tole.	Change	Social Desir.
PSM #1											
Experimental	29	24.34	29.62	26.70							
Control Group	8	28.42	30.65	29.44							
F test		5.82	<1	1.55							
p<		.022	N.S.	.223							
M-F/Step-down	1.95	5.82	<1	<1							
p<	.142	.022	N.S.	N.S.							
PSM #2											
Pretest $(CE)_2$	50	29.20	30.98	29.58	26.24	32.54	28.50	34.74	37.02	35.08	21.02
Posttest $(CE)_2$	50	26.06	31.06	28.56	27.32	32.40	30.02	33.72	35.98	35.24	19.98
F test		<1	1.04	<1	1.26	1.25	4.30	<1	3.13	15.35	5.14
p<		N.S.	.313	N.S.	.269	.270	.045	N.S.	.085	.001	.029
M-F/Step-down	2.34	<1	3.20	<1	2.18	1.27	<1	<1	1.34	7.21	3.20
p<	.036	N.S.	.081	N.S.	.148	.268	N.S.	N.S.	.255	.012	.084
PSM #3											
Returning Seniors	10	28.51	34.05	34.32	29.54	34.07	30.93	36.08	37.22	33.17	21.36
Experimental	29	25.07	30.48	26.94	27.29	31.86	29.31	33.89	36.87	36.32	20.31
Preselected	12	25.76	30.80	26.29	26.16	33.41	30.40	33.74	35.19	34.63	18.92
Linear Trend											
F test		<1	<1	<1	<1	1.62	4.40	<1	1.18	8.95	2.78
p<		N.S.	N.S.	N.S.	N.S.	.211	.043	N.S.	.283	.005	.104
M-F/Step-down	<1	<1	1.66	<1	1.37	1.42	1.29	1.03	<1	5.43	2.19
p<	N.S.	N.S.	.205	N.S.	.250	.242	.265	.317	N.S.	.027	.150
Quadratic Trend											
F test		<1	<1	<1	<1	1.58	<1	<1	<1	1.36	<1
p<		N.S.	N.S.	N.S.	N.S.	.216	N.S.	N.S.	N.S.	.251	N.S.
M-F/Step-down	1.18	<1	<1	<1	<1	<1	<1	<1	3.55	1.79	<1
p<	.342	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	.069	.191	N.S.
Two dF test											
F test		1.86	1.40	4.37	<1	1.26	<1	<1	<1	1.43	1.15
p<		.170	.258	.020	N.S.	.296	N.S.	N.S.	N.S.	.252	.329
M-F test	1.07	1.86	<1	2.24	<1	<1	<1	<1	1.79	3.04	<1
p<	.404	.170	N.S.	.121	N.S.	N.S.	N.S.	N.S.	.184	.063	N.S.
PSM #4											
Control Stayins	10	28.80	30.80	29.30							
Control Dropouts	10	29.80	32.70	28.50							
F test		<1	<1	<1							
p<		N.S.	N.S.	N.S.							
M-F/Step-down	<1	<1	<1	1.10							
p<	N.S.	N.S.	N.S.	.310							

	Adjusted Means								
	n	R	I	A	S	E	C	Differen-tiation	Consist-ency
SDS #1									
Experimental	30	8.06	5.39	7.70	9.78	5.75	4.72	5.62	2.14
Control Group	12	8.07	4.43	6.72	9.99	7.03	5.45	5.73	2.46
F test		<1	1.24	<1	<1	1.54	<1	<1	2.43
p<		N.S.	.274	N.S.	N.S.	.223	N.S.	N.S.	.129
M-F/Step-down	1.01	<1	1.37	<1	<1	2.07	1.09	<1	2.54
p<	.456	N.S.	.251	N.S.	N.S.	.162	.307	N.S.	.124
SDS #2									
$(CE)_2$	52	7.78	6.39	6.94	9.99	5.89	4.74	5.33	2.37
CWE	16	8.23	5.14	7.78	8.84	5.37	4.19	6.50	2.49
F test		<1	3.31	1.31	4.22	<1	<1	2.75	<1
p<		N.S.	.074	.257	.045	N.S.	N.S.	.102	N.S.
M-F/Step-down	1.81	<1	3.76	3.81	4.51	<1	<1	1.52	<1
p<	.098	N.S.	.058	.056	.038	N.S.	N.S.	.223	N.S.
SDS #3									
Returning Seniors	10	7.99	7.02	6.69	10.45	6.84	4.73	4.73	2.65
Experimental	30	7.19	6.06	7.06	10.02	5.81	5.26	5.38	2.23
Preselected	12	7.42	6.72	7.43	9.95	5.46	3.70	5.55	2.62
Linear Trend									
F test		<1	<1	<1	<1	<1	3.45	<1	5.10
p<		N.S.	N.S.	N.S.	N.S.	N.S.	.070	N.S.	.029
M-F/Step-down	<1	<1	<1	<1	<1	<1	3.70	<1	2.77
p<	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	.062	N.S.	.105
Quadratic Trend									
F test		<1	<1	<1	<1	<1	<1	<1	<1
p<		N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
M-F/Step-down	<1	<1	<1	<1	<1	1.26	<1	<1	<1
p<	N.S.	N.S.	N.S.	N.S.	N.S.	.269	N.S.	N.S.	N.S.
Two dF test									
F test		<1	<1	<1	<1	<1	1.74	<1	3.12
p<		N.S.	N.S.	N.S.	N.S.	N.S.	.187	N.S.	.055
M-F/Step-down	<1	<1	<1	<1	<1	<1	1.88	<1	1.76
p<	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	.168	N.S.	.168
SDS #4									
Pretest $(CE)_2$	52	7.08	5.54	7.63	10.06	5.83	4.37	5.83	2.48
Posttest $(CE)_2$	52	7.44	6.35	7.35	10.08	5.94	4.50	5.27	2.42
F test		5.05	<1	1.28	1.02	<1	<1	2.33	2.59
p<		.030	N.S.	.264	.318	N S.	N.S.	.134	.115
M-F/Step-down	2.66	5.05	<1	5.17	2.41	<1	<1	6.24	<1
p<	.021	.030	N.S.	.028	.128	N.S.	N.S.	.017	N.S.

Appendix C

DESCRIPTION OF EVALUATION INSTRUMENTS

A number of instruments were used to measure program effects. Some of those instruments were developed elsewhere and some were developed by the EBCE staff. Instruments developed elsewhere were selected accordin to the criteria listed below. Local instruments were developed jointly by the evaluation staff, other EBCE staff members and consultants in measurement and subject matter specialties.

When choosing measurement instruments developed elsewhere the following criteria were used:

1. Relationship to project goals, objectives and assumptions
2. Source credibility
3. Validity
4. Reliability
5. Objectivity
6. Student and staff time involved in administration

Below is a list of the standardized instruments used during FY 75 along with a description of each instrument.

Comprehensive Test of Basic Skills. The California Testing Bureau/ McGraw Hill Comprehensive Test of Basic Skills (CTBS) is being used as the primary Basic Skills instrument. Three subscores from this instrument are being used. In order to conserve student testing time Educational Testing Service, who is serving as the external evaluator, has authorized that the four Laboratories coordinating EBCE programs not administer the reading vocabulary or the arithmetic computations sections since these require extra time and are highly correlated with other CTBS subtests. Raw scores on all subtests have been transformed to an expanded standard score which makes comparisons across the various forms of the test possible. A description of the three subtests being used is presented below.

1. Reading Comprehension. This subtest measures a student's ability to comprehend the meaning of ideas, to interpret what is read, and to recognize the author's intention.
2. Arithmetic Concepts and Application. The arithmetic subtests measure the student's ability to recognize and use the appropriate arithmetic concepts (principles, formulae, decimals, exponents, etc.) and to use arithmetic in problem solving.

3. Study Skills. The study skills subtest measures the student's ability to use reference materials (library, dictionary, etc.) and graphic materials (maps, charts, symbols, etc.).

Last year some $(CE)_2$ students encountered difficulties in taking level 4 (designed for grades 9-12) of the CTBS, especially due to the reading level. This year it was decided to administer both levels 3 (designed for grades 8 and 9) and 4 of the CTBS in accordance with previous achievement of the students involved.

Correlation matrices were computed between last year's scores on the reading, arithmetic and study skills subtests and several predictor variables: School and College Achievement Test (SCAT) verbal, quantitative and total scores, and ninth, tenth and (in some instances) eleventh grade Grade Point Averages (GPAs). The results for the total $(CE)_2$ sample are presented in Table 1, while results for the total Tigard High School (THS) sample are presented in Table 2.

Table 1

INTERCORRELATIONS OF CTBS SUBSCORES WITH PREDICTOR VARIABLES FOR $(CE)_2$ STUDENTS*

	SCAT Subtests			Grade Point Averages	
CTBS Subscores	Verbal	Quantitative	Total	9th Grade	10th Grade
Reading	.77	.57	.76	.67	.47
Arithmetic	.47	.80	.70	.63	.66
Study Skills	.49	.68	.64	.39	.60

*Number of subjects ranged from 26 to 42 due to missing observations. All correlations are significant beyond the .01 level of confidence.

Table 2

INTERCORRELATIONS OF CTBS SUBSCORES WITH PREDICTOR VARIABLES FOR TIGARD HIGH SCHOOL RANDOM SAMPLE*

CTBS Subscores	SCAT Subtests			Grade Point Averages for Previcus Year
	Verbal	Quantitative	Total	
Reading	.63	.91	.89	.74
Arithmetic	.58	.87	.66	.74
Study Skills	.68	.46	.82	.71

*Number of subjects ranged from 44 to 52 due to missing observations. All correlations are significant beyond the .01 level of confidence.

As can be seen in the previous tables, Total Score on the SCAT is the best predictor of CTBS performance on the reading and study skills subtests, while the SCAT Quantitative subscore is the best predictor of CTBS arithmetic performance. Since each of the SCAT scores is normed with a mean of 50 and a standard deviation of 10 points, any of the students in this year's sample who received a score of 40 points or more on both the Quantitative and Total Scores of SCAT were assigned to be tested by level 4 of the CTBS. If both of these SCAT scores were below 40 points, the student was assigned to be tested by level 3 of the CTBS.

The following rules were observed in special cases where either the SCAT Quantitative subscore or the SCAT Total Score was below 40 points, while the other score was above 40 points:

1. If the total SCAT score was low (below 40 points) and the Quantitative score was boderline (40 or 41 points), the student was assigned to take level 3 CTBS. (1 instance)

2. If the total SCAT socre was high (above 43 points) and the Quantitative score was borderline (38 or 39 points), the student was assigned to take level 4 CTBS. (3 instances)

3. If both scores were borderline (39 to 41 points), the student was assigned to take level 3 CTBS. (1 instance)

4. If the Total SCAT score was borderline (40 or 41 points) and the Quantitative subscore was low (below 38 points), the student was assigned to take level 3 CTBS. (5 instances)

5. If the SCAT Quantitative score was borderline (40 or 41 points) and the Total SCAT score was low (below 38 points), the student was assigned to take level 3 CTBS. (1 instance)

6. If the SCAT Quantitative score differed from the Total SCAT score by more than 8 points, the student was assigned to take the lower score area at the level 3 CTBS and the higher score area at the level 4 CTBS. (2 instances)

In all, 17 students were assigned to take level 3, 54 students were assigned to take level 4 and 2 students were assigned to take separate levels. All students without SCAT scores (17 of them) were assigned to take level 4 of the CTBS.

Psychosocial Maturity Scale. Developed by Dr. Ellen Greenberger and associates at Johns Hopkins University, the Psychosocial Maturity Scale (PSM) is based on biological, psychological and sociological models of maturity. The scale measures nine variables contributing to psychosocial "maturity" and yields nine subscores, a total test score and a measure of the validity of the responses. Individuals respond on a four-point scale from strongly agree to strongly disagree to statements such as, "I believe in working only as hard as I have to." Paraphrased descriptions of the nine variables of psychosocial maturity and the validity scale are given below together with examples of questionnaire items.

1. Work. An individual's standards of competent task performance and his capacity to experience pleasure in work are encompassed by the concept of work. (Example: "I can't think of any kind of job that I would like a lot.")

2. Self-Reliance. Items pertaining to the concept of self-reliance may address one or more of three factors: an absence of excessive dependence on others, a sense of control over one's life and initiative. (Example: "You are probably wrong if your friends are against what you decide.")

3. Identity. The four components of identity are increasing clarity of self-concept, consideration of life goals, internalization of values, and self-esteem. (Example: "I change the way I feel and act so often that I sometimes wonder who the 'real' me is.")

4. Communications. Communications involves skills in "sending" or encoding verbal and nonverbal messages, skills in "receiving" or decoding verbal and nonverbal messages, and empathy. (Example: "People find it hard to figure me out from what I say.")

5. Role. Knowledge of roles involves both an awareness of obligations inherent in current definitions of major roles and an awareness of priorities that govern the resolution of role conflicts. (Example: "Teachers should not expect as much homework from athletes who have to spend a lot of time at practice.")

6. Trust. Three basic attitudes characterize "enlightened" (credible) trust: general belief in the acceptability of reliance or dependency on others, rejection of simplistic views of the "goodness" or "badness" of human nature, and recognition of individual and situational factors that limit trustworthiness. (Example: "If

people are picked in a fair way to be on a trial jury, they are sure to reach a fair decision.")

7. Social Commitment. The dimensions of social commitment are feelings of "community" with others, willingness to modify or relinquish personal goals in the interest of social goals, readiness to form alliances with others to promote social goals, and investment in long-term social goals. (Example: "It's not really my problem if my neighbors are in trouble and need help.")

8. Tolerance. Tolerance involves the person's willingness to interact with individuals and groups who differ from the norm and an ability to be sensitive to their rights. It also involves an awareness of the costs and benefits of tolerance. (Example: "If I had a choice, I would prefer a blood transfusion from a person of the same skin color as mine.")

9. Change. The change variable includes general openness to socio-political change and recognition of the costs of both the status quo and change. (Example: "If everyone is to be really equal, some people will have fewer advantages than they have now.")

10. Social Desirability. (Validity Scale) This variable reflects the tendency to respond in the socially acceptable way. It is not a factor of "maturity" but serves instead as a validity check on responses to other items on the instrument. (Example: "I have never told a lie.")

Through the use of a factor analysis, the developers of the PSM have designed a way of combining the scale scores to arrive at three intermediate scales. These intermediate scales, more reliable than the original scales, provide a useful level of analysis to detect gross attitudinal changes. These scales include:

1. Individual Adequacy. Consists of the work, self-reliance and identity scales.

2. Interpersonal Communication. Consists of the communication, role and trust scales.

3. Social Adequacy. Consists of the social commitment, tolerance and change scales.

The version of this inventory being used this year has been revised since last September. Research and analysis of test data by Dr. Greenberger and $(CE)_2$ program evaluators revealed that the test was unnecessarily lengthy. The test was revised by Dr. Greenberger by dropping 101 items which were repetitious or had low item-test correlations and retaining only 102 items.

Self Directed Search. This standardized instrument was developed by John Holland and his associates at Johns Hopkins University. The Self Directed Search (SDS) is designed to aid in educational and vocational

planning. Based upon the student's self-perceptions, abilities, background and interests, this instrument assigns the student a summary SDS code. This code is a simple way of organizing information both about people and jobs. A description of the six SDS codes follows. Each student is assigned a primary, secondary and tertiary code.

1. Realistic (R). General preference for activities that entail the explicit, ordered or systematic manipulation of objects, tools, machines and animals; a dislike of educational or therapeutic activities.

2. Investigative (I). General preference for activities that entail the observational, symbolic, systematic and creative investigation of physical, biological and cultural phenomena in order to understand and control such phenomena; a dislike of persuasive, social and repetitive activities.

3. Artistic (A). General preference for ambiguous, free, unsystematized activities that entail the manipulation of physical, verbal or human materials to create art forms or products; a dislike of explicit, systematic and ordered activities.

4. Social (S). General preference for activities that entail the manipulation of others to inform, train, develop, cure or enlighten; a dislike of explicit, ordered, systematic activities involving materials, tools or machines.

5. Enterprising (E). General preference for activities that entail organizational goals or economic gain; a dislike of observational, symbolic and systematic activities.

6. Conventional (C). General preference for activities that entail the explicit, ordered, systematic manipulation of data; a dislike of ambiguous, free, exploratory or unsystematic activity.

Based on the student's primary, secondary and tertiary SDS codes, other information about the student's personality and career decision making will be obtained.

The consistency code is an index of the internal consistency of the personality. Operationally, it describes the degree of compatability between the primary and secondary code. For example, a person with an "Artistic" primary code and a "Conventional" secondary code will probably exhibit contradictory behavior patterns and interests and receive a low consistency code.

The congruency code describes the relationship between a personality pattern and the environmental demands of a given career. According to theory and empirical data, a "Realistic" person functions best and is happiest in a "Realistic" environment. Operationally, the congruency code describes the relationship between the student's SDS code and the SDS code of his career goal.

The differentiation code describes the degree to which a person represents a "pure" personality type. A person with very strong "Social" interests and competencies, for example, is more of a "pure" type than a person with moderate "Social," "Enterprising," and "Conventional" interests and competencies. The differentiation code is computed by subtracting the numerical weight of the tertiary code from the weight of the primary code.

Below is a list of locally developed instruments used in FY 75 along with a description of each instrument.

1. Semantic Differential. The Semantic Differential is an instrument that measures in an indirect way students' feelings about certain concepts. In this case, the concepts of me, school, adults, learning, work, decision making and community resources were chosen by $(CE)_2$ operations staff and a clinical psychologist as central concepts in the $(CE)_2$ program. Using a five-point scale, students rated each concept in terms of the following 15 polar adjectives: interesting-boring, unfriendly-friendly, good-bad, easy-difficult, scary-fun, tense-relaxed, reasonable-unreasonable, sad-happy, wise-foolish, irrelevant-relevant, open-closed, painful-pleasureable, important-unimportant, weak-strong and warm-cold.

2. Student Background Questionnaire. The Student Background Questionnaire was developed in alternate forms for obtaining background information in September for students in the EBCE program and in the control group. In the questionnaire, information about family background, students' previous employment history, short- and long-range educational and work goals, involvement in high school and community activities, hobbies, reading habits were requested. A tabulation of responses by group is displayed in Appendix A.

3. Student End of Year Questionnaire. The Student End of Year Questionnaire was administered to $(CE)_2$ and control group students at the end of the school year. The instrument was designed for the following purposes: (1) to follow up on questions asked on the Student Background Questionnaire administered at the beginning of the year to assess any change that might have occurred during the year; (2) to assess student knowledge about job trends and related information; and (3) to collect data on student reflections about their school/$(CE)_2$ experiences. A tabluation of responses by group is displayed in Appendix D.

4. $(CE)_2$ Staff Questionnaire. The $(CE)_2$ Staff Questionnaire was administered in June and asked the staff to rate the importance and perceived effectiveness of learning strategies used in $(CE)_2$ and student learning outcomes. It also contained questions dealing with the staffs' perception of factors contributing to and those limiting the success of the program, changes they would suggest in the program, and areas in which students have made greatest and least growth so far this year. A copy of the $(CE)_2$ Staff Questionnaire containing tabulated responses of each of the $(CE)_2$ operations staff is located in Appendix F.

5. $(CE)_2$ Student Interview. In early January, 1975, a semi-structured interview was conducted by the internal evaluation staff with 20 randomly selected $(CE)_2$ students. The purpose of the interview was to assess student perceptions of processes and activities that could not be easily assessed by questionnaires or some other means. Topics covered in the interview include: (1) student involvement in planning the learning program, (2) student freedom in carrying out learning activities, (3) student evaluation of their own learning activities, (4) student career awareness, (5) student progress, and (6) program's effect on students. A copy of the interview schedule with tabulated responses is included in Appendix E.

6. Staff Rating of Student Form. During the first semester and again at the end of the school year, each $(CE)_2$ staff member was asked to rate each student on seven dimensions using a five-point Likert scale. The seven dimensions and interrater reliability for each are: (1) knows his/her own aptitudes, interests and abilities (.59); (2) applies a knowledge of his/her own aptitudes, interests and abilities to potential career interests (.68); (3) demonstrates willingness to apply Basic Skills to work tasks and to avocational interests (.42); (4) initiates program related behaviors (a self-starter--.76); (5) assumes responsibility for carrying out tasks (.77); (6) conducts conversation with an adult that reveals his/her self-confidence (.66); (7) understands another person's message and feelings (.41).

7. Case Study Instruments. The interview and observation schedules used in the conduct of the case studies are described and displayed in the EBCE Interim Case Study Report.

8. Student Career Plans Questionnaire. Seven questions dealing with students' career plans and with the career plan process were isolated from the student background questionnaire and administered to the Cooperative Work Experience Program students only. Results of this questionnaire are included in Appendix A.

9. Non-Applicant Questionnaire. A short two page questionnaire was devised and administered in April to those students at THS who asked for an application to $(CE)_2$ for the 1975-76 school year but who did not return that application. The questionnaire was designed to determine why the students did not return the application, what their future plans included, and what further recruitment information was desired.

10. Materials Use Sites Replication Questionnaire. A series of short questionnaires designed to document the type and extent of use of EBCE materials by local districts and to measure participants' perceptions of the materials' usefulness were used in the evaluation of replication. A list of these questionnaires is included below:

    - General Questionnaire (Staff Members)

    - Exploration Package Questionnaire (Staff Members)

- Journal Questionnaire (Staff Members)
- Learning Site Analysis Form Questionnaire (Staff Members)
- Journal Questionnaire (Students)
- Exploration Package Questionnaire (Students)
- Learning Site Analysis Form Questionnaire (Employers)

11. Employer Survey Questionnaire. (ETS)

12. Parent Survey Questionnaire. (ETS)

Appendix D

TABULATED RESPONSES TO THE $(CE)_2$ STUDENT END OF YEAR QUESTIONNAIRE

This appendix lists the tabluation of responses to an end of year questionnaire administered in May to $(CE)_2$ and control group students. Responses for $(CE)_2$ students are shown separately for true experimental students (Exp.), returning seniors (Ret. Sr.), preselected $(CE)_2$ students (Presel.), and for the total group.

This brief questionnaire repeats some of the items that you were asked in September and adds some new ones that cover your career plans, personal experiences and knowledge about the world of work. If you have any questions while you are completing the survey just ask for assistance.

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control	CWE
1. What do you expect to be doing one year after completing high school?						
1. ☐ Working full-time	27*	40	17	27	36	47
2. ☐ Entering an apprenticeship or on-the-job training program	0	10	0	2	28	18
3. ☐ Going into regular military service or to a service academy	10	0	0	6	14	24
4. ☐ Attending a vocational, technical, trade or business school	3	20	17	10	7	0
5. ☐ Attending a junior or community college	40	20	17	31	14	59
6. ☐ Attending a four-year college or university	10	20	50	21	21	12
7. ☐ Working part-time	17	10	33	20	14	29
8. ☐ Other (travel, take a break)	20	10	0	14	7	24
9. ☐ I have no idea what I'll be doing	7	0	0	4	0	6

*All numbers indicate percent of students responding unless otherwise indicated.

	Exp.	Ret. Sr.	Presel.	Total (CE)$_2$	Control	CWE
2. How far do you plan to pursue your formal education?						
1. ☐ Don't plan to finish high school	0	0	0	0	0	0
2. ☐ High school graduate	24	20	25	24	36	18
3. ☐ High school plus one or two years of college, community college or special training	35	50	8	30	36	23
4. ☐ High school plus three or more years of college, community college or special training	21	0	17	16	7	47
5. ☐ Four year college graduate	17	10	33	20	14	6
6. ☐ Graduate or professional training beyond college	3	20	17	10	7	6

3. Please list two jobs that you feel you might like to hold after completing your education. Be as specific as possible. For example, say "a draftsman" rather than "working at Tektronix."

1. See Table 1 on next page. 2. See Table 2 on next page.

	Exp.	Ret. Sr.	Presel.	Total (CE)$_2$	Control	CWE
4. Have you observed or directly worked at either or both of the two preferred jobs listed for question 3?						
1. ☐ I observed or worked at both jobs	67	70	67	66	29	
2. ☐ I observed or worked at one of these two jobs	33	20	33	32	57	
3. ☐ I did not observe or work at either job	0	10	0	2	14	

Table 1

$(CE)_2$ AND CONTROL GROUP STUDENTS FIRST OCCUPATIONAL CHOICE CLASSIFIED BY HOLLINGSHEAD'S SOCIO-ECONOMIC STATUS CATEGORIES

Hollingshead's SES	GROUP				
	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
Executive	7	20	25	14	15
Manager	21	10	42	23	23
Administrator	17	10	8	14	15
Clerical	28	30	17	25	8
Skilled	17	20	8	16	31
Semiskilled	10	10	0	8	8
Unskilled	0	0	0	0	0
Don't Know	0	0	0	0	0

Table 2

$(CE)_2$ AND CONTROL GROUP STUDENTS SECOND OCCUPATIONAL CHOICE CLASSIFIED BY HOLLINGSHEAD'S SOCIO-ECONOMIC STATUS CATEGORIES

Hollingshead's SES	GROUP				
	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
Executive	12	40	9	14	15
Manager	19	0	36	21	31
Administrator	23	0	18	19	8
Clerical	27	20	27	26	15
Skilled	15	40	0	14	31
Semiskilled	4	0	0	3	0
Unskilled	0	0	10	3	0
Don't Know	0	0	0	0	0

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control	CWE
5. How sure are you of steps to prepare for and enter each of the two jobs?						
1. ☐ Do not know where to begin	3	20	8	8	0	6
2. ☐ Have some idea	24	20	17	22	39	50
3. ☐ Steps pretty clear	41	30	50	41	23	38
4. ☐ Steps quite clear	32	30	25	29	38	6
6. Do you feel you will be able to complete the necessary steps for at least one of the jobs?						
1. ☐ Yes	88	90	83	87	57	
2. ☐ Not sure	12	10	17	13	43	
3. ☐ Probably not	0	0	0	0	0	
7. What aspects of your learning experience this year (if any) influenced your choice of potential careers? (Check as many as apply.)						
1. ☐ None	7	30	8	12	14	
2. ☐ I talked to teachers or a counselor about my choices	33	20	25	29	36	
3. ☐ I talked to people who work at the jobs	70	50	50	62	64	
4. ☐ I talked with relatives or friends about my choices	33	40	25	33	36	
5. ☐ I had experience in observing or trying out the jobs	73	60	75	71	43	

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
6. ☐ I read about the jobs	20	20	8	17	29
7. ☐ Other (please write in)	13	0	8	10	14

8. a. Are there any jobs that last year seemed interesting that you now feel do not match your interests or abilities?

☐ Yes	59	50	60	57	36
☐ No	41	50	40	43	64

b. If yes, list these jobs: See Table 3 on next page.

c. Why do you now feel that the job(s) no longer match your interests or abilities?

See Table 4 on next page.

d. What caused you to change your mind about the job(s)? (Check one or more.)

1. ☐ Advice from teachers or a counselor.	0*	0	0	0	0
2. ☐ Advice from relatives or friends	2	1	0	3	1
3. ☐ Advice from someone who works at the job(s)	4	3	0	7	1
4. ☐ Information I have read about the job(s)	3	2	0	5	2
5. ☐ Experience in observing or trying out the job(s)	9	4	2	15	6
6. ☐ My interests have changed	11	4	1	16	4
7. ☐ I don't know	1	0	0	1	0
8. ☐ Other (please state your reason)	1	1	0	2	0

* Numbers refer to actual number of students selecting the response.

Table 3

NUMBER OF STUDENTS LOSING INTEREST IN SPECIFIC CAREERS BY CAREER CATEGORY

CAREER CATEGORY	NUMBER OF STUDENTS				
	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
Executive	1	1	0	2	1
Manager	2	1	0	3	1
Administrator	4	1	0	5	0
Clerical	2	0	2	4	3
Skilled	2	1	1	4	0
Semiskilled	0	0	0	0	0
Unskilled	1	0	0	1	0

Table 4

CLASSIFICATIONS OF REASONS GIVEN BY STUDENTS FOR BECOMING DISINTERESTED IN A PARTICULAR CAREER

REASONS FOR CHANGE OF INTEREST	NUMBER OF STUDENTS				
	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
Student interest changed	2	2	0	4	0
Career did not measure up to student's expectations	3	1	2	6	4
Student's personality did not fit the career	3	0	0	3	1
Career demands more skills or training than student has or is willing to obtain	1	1	0	2	0
Other	2	0	0	2	0

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
9. How helpful do you feel your school experiences this year have been in helping you solve problems logically? (Very helpful 1 2 3 4 5 Of little or no help)	4.50*	4.70	4.08	4.44	3.29
10. How helpful have your school experiences been in helping you to understand the role of science in our society today? (Very helpful 1 2 3 4 5 Of little or no help)	3.97	3.80	3.25	3.77	3.07
11. How helpful have your school experiences been in helping you to understand more about yourself? (Very helpful 1 2 3 4 5 Of little or no help)	4.48	4.30	4.45	4.44	3.57
12. How helpful have your school experiences been in helping you to get along with others? (Very helpful 1 2 3 4 5 Of little or no help)	4.33	4.20	4.17	4.27	3.86
13. How helpful have your school experiences been in helping you to understand the democratic process? (Very helpful 1 2 3 4 5 Of little or no help)	3.45	3.60	3.50	3.49	3.43
14. How helpful have your school experiences been in helping you to develop your own creativity? (Very helpful 1 2 3 4 5 Of little or no help)	4.23	4.30	4.08	4.21	3.64
15. How helpful have your school experiences been in helping you to learn how your interests and abilities fit into potential careers? (Very helpful 1 2 3 4 5 Of little or no help)	4.43	4.40	4.17	4.36	3.43

*Numbers on items 9-30 represent group means.

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control

16. How helpful have your school experiences been in helping you to learn how society's values, the government and the economy affect the world of work?

Very helpful — Of little or no help

1	2	3	4	5
3.63	3.90	3.83	3.73	3.36

17. How helpful have your school experiences been in helping you to learn what to look at in considering a job?

Very helpful — Of little or no help

1	2	3	4	5
4.52	4.40	4.42	4.47	3.43

18. How helpful have your school experiences been in helping you to learn how to find and keep a job?

Very helpful — Of little or no help

1	2	3	4	5
3.52	4.20	4.08	3.78	3.00

19. How helpful have your school experiences been in helping you to learn the basic skills necessary for the careers that interest you?

Very helpful — Of little or no help

1	2	3	4	5
4.23	4.00	4.17	4.17	3.36

20. How helpful have your school experiences been in helping you to improve your reading skills?

Very helpful — Of little or no help

1	2	3	4	5
3.20	3.90	2.92	3.27	3.21

21. How helpful have your school experiences been in helping you to improve your math skills?

Very helpful — Of little or no help

1	2	3	4	5
3.83	3.70	2.92	3.60	3.00

22. How helpful have your school experiences been in helping you to improve your communication skills (speaking and writing)?

Very helpful — Of little or no help

1	2	3	4	5
3.67	4.50	3.33	3.75	3.43

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control

23. How helpful have your school experiences been in helping you to know what level of basic skills proficiency is required in the jobs of interest to you?

Very helpful — Of little or no help

1 2 3 4 5

3.89	4.10	4.09	3.98	3.07

24. How helpful have your school experiences been in helping you to gain confidence in your ability to apply basic skills to complete tasks and to solve problems around you?

Very helpful — Of little or no help

1 2 3 4 5

3.88	4.30	4.00	3.98	3.50

25. How helpful have your school experiences been in helping you to become acquainted with a broad range of resources to use in gathering information for work and decision making?

Very helpful — Of little or no help

1 2 3 4 5

4.13	4.10	4.08	4.11	3.50

26. How helpful have your school experiences been in helping you to communicate comfortably with adults?

Very helpful — Of little or no help

1 2 3 4 5

4.03	4.50	4.08	4.13	2.93

27. How helpful have your school experiences been in helping you to take responsibility for your own actions?

Very helpful — Of little or no help

1 2 3 4 5

4.30	4.30	4.73	4.39	3.64

28. How helpful have your school experiences been in helping you to become more open to ideas and values different from your own?

Very helpful — Of little or no help

1 2 3 4 5

4.27	4.20	4.31	4.28	3.78

	Exp.	Ret. Sr.	Presel.	Total (CE)$_2$	Control	CWE

29. How helpful have your school experiences been in helping you to use information obtained through direct experiences in making decisions?

Very helpful 1 2 3 4 5 Of little or no help

4.07	4.30	4.25	4.15	3.21

30. How helpful have your school experiences been in helping you to feel prepared to accept adult responsibilities?

Very helpful 1 2 3 4 5 Of little or no help

4.40	4.30	4.17	4.33	3.43

Listed below are ten statements about career planning. For each statement check either the Agree or Disagree column.

31. Most persons remain in the same job throughout their adult lives.

30*	20	50	32	77	38

32. Few women work outside of the home after marriage.

17	10	8	14	29	13

33. Less than one-third of all job openings require a college degree.

61	30	50	52	36	59

34. Most people have the ability to do well in any job if they set their minds to it.

90	80	92	89	93	47

35. There is only one "right job" for a person in terms of his/her abilities.

13	10	0	10	21	18

36. The unemployment rate of 20-year-olds in the labor market is usually less than the rate for other adults.

43	50	8	36	46	41

37. The State Employment Service Office provides free information about job openings and job training programs.

97	90	100	96	71	88

38. Apprentices are paid while they learn.

83	89	75	82	77	71

*Numbers represent the percent agreeing with each statement. Questions 33, 37 and 38 were considered true in the ACT report; others false.

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control	CWE
39. The English and math skills of freshmen are about the same from one college to another.	38	40	50	41	25	38
40. Ten years from now most jobs will require four or more years of college.	56	44	67	56	62	40
41. This year, approximately how many pamphlets, brochures, manuals or magazine articles did you read?						
1. None	0	0	0	0	7	
2. 1 to 5	10	10	8	10	7	
3. 6 to 10	27	40	0	23	21	
4. 11 to 20	20	30	42	27	29	
5. 21 to 30	10	0	17	10	14	
6. More than 30	33	20	33	31	22	
42. This year, approximately how many books (not counting textbooks) did you read?						
1. None	3	10	0	3	7	
2. 1 or 2	17	20	17	17	14	
3. 3 to 5	30	10	8	21	36	
4. 6 to 10	20	30	33	25	22	
5. 11 to 20	17	20	25	19	0	
6. More than 20	13	10	17	14	21	
43. Do you read the newspaper?						
1. No, or almost never	6	10	17	10	14	
2. Yes, at least once or twice a week	47	60	8	40	64	
3. Yes, most every day	47	30	75	50	22	

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$	Control
44. If you read the newspaper at least once a week, what sections do you usually read? (Check one or more)					
1. Sports	36	22	27	31	39
2. Fashions	25	0	36	23	23
3. Front page news	82	77	91	83	77
4. Comics	86	89	91	88	85
5. Editorial	25	22	9	21	15
6. News Columnist	18	11	18	17	0
7. Other	32	33	9	27	8
45. During the school year, approximately how many visits did you make to the community resources? (if none, write "0")*					
Public Libraries	7.1	8.3	7.3	7.3	.8
Museums	.9	.2	1.1	.8	1.1
Courts	2.1	2.0	6.3	3.1	.8
Public Meetings	1.5	2.7	4.5	2.4	.2
Local colleges or universities	5.6	.7	2.0	3.8	.6
State Legislature	.1	2.5	0.0	.6	.4
46. How would you rate the overall quality of your school program? (Poor 1 2 3 4 5 Excellent)	4.43	4.60	4.16	4.40	3.53
47. In school have you felt that you could progress at your own rate? (Definitely no 1 2 3 4 5 Definitely yes)	3.93	3.60	3.75	3.81	3.07

*Numbers on items 45-47 represent group means.

	Exp.	Ret. Sr.	Presel.	Total $(CE)_2$

The following questions were asked of $(CE)_2$ students only.

48. If you had it to do over again, do you think you would decide to participate in $(CE)_2$?

Definitely no 1 2 3 4 5 Definitely yes

4.36	4.40	4.66	4.44

49. In comparison with regular high school, how much opportunity did $(CE)_2$ provide you for learning about occupations?

Much less 1 2 3 4 5 Much more

4.80	4.70	5.00	4.82

50. In comparison with regular high school, how much opportunity did $(CE)_2$ provide you for general learning?

Much less 1 2 3 4 5 Much more

3.93	4.40	3.91	4.01

51. In comparison with past experiences in regular high school, how motivated are you to learn in $(CE)_2$?

Much less 1 2 3 4 5 Much more

4.36	4.60	4.41	4.42

52. What courses, if any, have you taken this year at Tigard High School, a community college, employer site or elsewhere (please list any courses and where they were taken)?

Seven students took courses in Algebra, Current Events, French, Chemistry, Advanced Theater Arts, Scuba Diving, and Emergency Medical Technology.

53. In your opinion, what are the greatest strengths of the $(CE)_2$ program?

	Number of Students
Empathetic staff	17
Opportunity for "hands on" learning	17
Career awareness	7
Freedom and responsibility given students	5
Opportunity to express oneself	2
Student-staff ratio	2

54. In your opinion, what are the greatest weaknesses of the $(CE)_2$ program?

	Number of Students
None	8
Difficulties getting a desired employer site	5
Transportation problems	3
Too much work	3

Appendix E

$(CE)_2$ MIDYEAR INTERVIEW SUMMARY

Appendix E contains the tabulated responses of 20 randomly selected $(CE)_2$ students to an interview conducted in January 1975.

Student Name_____ Date_____ Interviewer_____

I. Student Involvement

1. How much involvement do you feel you have this year in planning your own learning program at $(CE)_2$ in terms of activities done at both the learning center and at job sites?

   Much 16* Some 4 Little____ None____

   a. Have you been able to get the employer sites you wanted?

      Generally yes 15 Generally no 5

   b. Did you have any involvement in planning how you would do your pre-prepared projects?

      Yes 12 No 8 What involvement? **

   c. Were you involved in planning your individual projects? (topics, activities, schedule, etc.)

      Yes 19 No___ What involvement? 1 Has not completed an individual project

      **

2. How much freedom do you have in how you carry out your projects, competencies and work at employer sites? (Use P, C and W to code in the answers)

	Much	Some	Little	None
Projects	5	13	2	
Employer Sites	16	4		
Competencies	1	4	11	4

   a. How do you let it be known that you want to do a project in a certain way?

      **

   b. Is this usually effective?

      Yes 18 No____ N.A. 1

   c. Have you ever initiated a project by approaching the LM with an idea before the LM made suggestions?

      Yes 18 No___ N.A. 1

3. How much involvement do you feel you have in evaluating your own activities at the learning center and at the employer site?

   Much 3 Some 4 Little 4 None 8

   a. How do you go about evaluating these activities?

---

* Represents the number of students indicating each response

** For additional clarification see Addendum to this Appendix

II. Career Awareness

4. Since entering $(CE)_2$ have you thought about your future career or educational plans?

Yes 18 No 1

a. Has your experience in $(CE)_2$ helped you to decide that you would not like to work in certain occupations?

Yes 15 No 4

Why? (check to see if student uses multisensory data)

How did you find that out?

b. Has your experience in $(CE)_2$ helped you to decide that you would like more information about any particular careers?

Yes 18 No 1

If yes, which ones?

Why?

c. Has your experience in $(CE)_2$ helped you to decide on one or several careers that you would be interested in following?

Yes 12 No 7

If yes, which ones?

Why?

How did you find that out?

III. Student Progress

5. How do you stand in terms of the number of projects, competencies and explorations that you have completed to date as compared with the number expected by the $(CE)_2$ staff?

(Behind in: projects 13 students, competencies 10 students, explorations 3 students.)

If behind,

a. Do you feel the number of projects, etc. expected by the staff is reasonable?

Yes 14 No 5

If no, why?

b. What things have prevented your reaching these expectations?

*

6. How likely do you feel it is that you will be able to complete all the required activities by the end of the school year?

Very likely 17 2 ___ Very unlikely

If unlikely, what do you plan to do about it?

7. Has the zone system used this year at $(CE)_2$ helped you to pace your activities or has it merely created extra work for you?

Helped 14 Extra work 4 Has not affected student 1

How?

IV. Program's Effect on Students

8. In what ways, if any, has $(CE)_2$ helped you the most?

*

9. What changes, if any, would you like to see in $(CE)_2$ so that it could help you or other students more?

*

V. Additional Questions

10. What proportion of your time do you spend in the learning center?

Learning center 55% Community 45%

a. Do you enjoy learning center or community activites more?

Learning center 44 Community 50 Both 6

b. Do you learn more from the learning center or community activites?

Learning center 38 Community 43 Both 19

11. What do you see as the primary benefit resulting from the retreat?

*

* See Addendum

Addendum of Interview Responses

1.b "I negotiate parts of the project" (12*)
No involvement (8)

1.c "I usually come up with the topic" (18)
"I usually come up with list of activities" (17)

2.a "I take my ideas to the LM" (17)
"I take my ideas to the ERS" (1)
"I have not done an individual project" (1)

5.a "Too many projects" (2)
"Too many competencies" (2)
"Too many of both" (1)

5.b Procrastination (7)
Lack of clarity about expectations (2)
Difficulty getting resources (2)
Does not use Zone system (1)

8. "Increased my responsibility and initiative" (10)
"Learned to communicate and express feelings" (4)
"Helped me learn about careers" (3)
"Gave me more self-confidence" (2)
"Helped me look at things realistically" (1)
"Helped me to get to know my community" (1)
"Helped me do higher quality work" (1)
"Kept me in school" (1)
"Gave me freedom to express myself" (1)
"Really helped me prepare for life" (1)

9. More learning managers or employer relations specialists (2)
Less authoritarian attitudes from some staff members (2)
Eliminate the zones (2)
Less competencies (1)
Revise the journal (1)
A more homey building (1)
Select more serious students (1)
A larger facility (1)
More employer sites (1)
Cut back requirements (1)
Make it less like a school (1)
Extra van (1)
Widen the program to other districts and students (1)
Better explanation during orientation (1)
More flexible pre-planned projects (1)
None (2)

11. Getting to know people (6)
Building a sense of community (4)
Solving problems (2)
A chance to get away (1)

* Number of students

Appendix F

TABULATED RESPONSES TO THE $(CE)_2$ STAFF QUESTIONNAIRE

This questionnaire is intended by the evaluation unit to obtain the opinions of each of the $(CE)_2$ staff about the procedures and the outcomes of $(CE)_2$. It should only take a few minutes to complete and all responses are confidential. Thanks in advance for your time and energy.

1. Listed below are the major learning strategies used in $(CE)_2$. Please rate each in terms of how important you feel it is for $(CE)_2$ students and secondly in terms of how effective you feel it has been this year.

Learning Strategies	Importance Response Mean	How Important: Not Imp. 1	2	Highly Imp. 3	4	5	How Effective: Not Eff. 1	2	Highly Eff. 3	4	5	Effectiveness Response Mean
a. Student Orientation	4.16*			1	3	2		1	5			2.83
b. Student Accountability System	5.00					6				4	2	4.33
c. Student Negotiation	5.00					5			1	3	1	4.00
d. Preprepared Projects	4.00			1	4	1			3	2	1	3.66
e. Individual Projects	4.83				1	5			1	4	1	4.00
f. Journals	4.16			2	1	3			2	2	2	4.00
g. Competencies	4.75				2	4				6		4.00
h. Exploration Packages	4.33				4	2			2	3	1	3.83
i. Learning Level Process	4.83				1	5		1	1	3	1	3.66
j. Special Placements	4.00			2	2	2			3	2	1	3.66
k. ILA Materials	4.66				2	4			3	1	2	3.83
l. Employer Seminars	3.33		1	2	3			2	4			2.66
m. Student Retreat	4.00			2	2	2			3	2	1	3.66
n. Group Activities (e.g., cadres)	3.33			4	2		2	1	3			2.16
o. Others (please specify) CIS				1					1			

*Mean responses for importance and for effectiveness are shown in the extreme left and right hand columns respectively. Numbers in the center refer to the number of staff selecting each rating.

2. How helpful do you feel $(CE)_2$ experiences this year have been in helping students solve problems logically?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
6					4.00

3. How helpful have $(CE)_2$ experiences been in helping students to understand the role of science in our society today?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
3	3				3.50

4. How helpful have $(CE)_2$ experiences been in helping students to understand more about themselves?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
3	3				4.50

5. How helpful have $(CE)_2$ experiences been in helping students to get along with others?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	4	1			4.00

6. How helpful have $(CE)_2$ experiences been in helping students to understand the democratic process?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
3	3				3.50

7. How helpful have $(CE)_2$ experiences been in helping students to develop their own creativity?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	1	4			3.50

8. How helpful have $(CE)_2$ experiences been in helping students to learn how their interests and abilities fit into potential careers?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	4				4.33

9. How helpful have $(CE)_2$ experiences been in helping students to learn how society's values, the government and the economy affect the world of work?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	2	3			3.66

10. How helpful have $(CE)_2$ experiences been in helping students learn to analyze potential jobs?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	3	1			4.16

11. How helpful have $(CE)_2$ experiences been in helping students to learn how to find and keep a job?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	4	1			4.00

12. How helpful have $(CE)_2$ experiences been in helping students to learn the basic skills necessary for the careers that interest them?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
	5	1			3.83

13. How helpful have $(CE)_2$ experiences been in helping students to improve their reading skills?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
	3	3			3.50

14. How helpful have (CE)$_2$ experiences been in helping students to improve their math skills?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
	5	1			3.83

15. How helpful have (CE)$_2$ experiences been in helping students to improve their communication skills (speaking and writing)?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	5				4.16

16. How helpful have (CE)$_2$ experiences been in helping students to know what level of basic skills proficiency is required in the jobs of interest to them?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	4				4.33

17. How helpful have (CE)$_2$ experiences been in helping students to gain confidence in their ability to apply basic skills to complete tasks and to solve problems around them?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	3	1			4.16

18. How helpful have (CE)$_2$ experiences been in helping students to become acquainted with a broad range of resources to use in gathering information for work and decision making?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
3	3				4.50

19. How helpful have (CE)$_2$ experiences been in helping students to communicate comfortably with adults?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
6					5.00

20. How helpful have $(CE)_2$ experiences been in helping students to take responsibility for their own actions?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
3	3				4.50

21. How helpful have $(CE)_2$ experiences been in helping students to become more open to ideas and values different from their own?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	3	1			4.16

22. How helpful have $(CE)_2$ experiences been in helping students to use information obtained through direct experiences in making decisions?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
2	4				4.33

23. How helpful have $(CE)_2$ experiences been in helping students to feel prepared to accept adult responsibilities?

Very helpful				Of little or no help	Mean
5	4	3	2	1	
1	4	1			4.00

24. What factors, if any, have you seen this year that are contributing in a major way to the success of the $(CE)_2$ program?

Staff-Staff and Staff-Student Rapport.
Flexibility of learning plans.
Kids of leadership quality.
Staff cooperation and mutual appreciation.
Improved staff compatability.
Better range of students.
I have seen a great deal of individual support for many students from many people.
Accountability system.
Close working staff.
Addition of above average students to the student population.
Overall consistency of the entire staff.

25. What obstacles, if any, have you seen this year that are limiting the success of the $(CE)_2$ program?

Not tight enough follow-through on accountability consequences.
Motivating students to do academic work at employer sites.
Need more work on employer seminars.
Lack of grasp by NIE of what they have here, what to do with it.
Lack of consistent direction toward marketing.
I feel that there are no obstacles that are "limiting" the success. This is not to say that individual problems do not arise.
Uncertainty about NIE plans.
Late development of ILA.
Inhouse program inconsistencies (i.e., 15 hrs./week on-job-site vs. 5 exp'l. and L. level)

26. In what areas do you feel the $(CE)_2$ students have made the greatest growth this year? Why?

Becoming aware of world of work.
Seriously considering employment options.
Ability to design own learning plans.
Knowledge of their own strengths and weaknesses.
General awareness of what the world of work is all about.
Maturity, confidence, realism, judgement and cooperation.
Attitude toward adults, themselves and education.
Self-confidence.
Work habits.
Communication skills.
Career awareness.
Basic skills.
Involvement in community activities.
Completion of program materials.

27. In what areas do you feel the $(CE)_2$ students have made the least growth this year? Why?

Reading--needs more emphasis.
Accepting responsibility--need better enforcement of the accountability system.
Probably Basic Skills--ILA is just now implemented.
Personal discipline, keeping the area clean, being punctual, obscene language.
The area of least growth seems to be in the area of peer relationships. Students still seem to "hang" together in their own group.
Basic Skills due to late start.
Understanding the scope of the $(CE)_2$ program.
Career development process.

28. If you were to predict ways in which, four years from now, this year's $(CE)_2$ graduates would be different from a control group of students who attended Tigard High School only, in what ways do you feel the $(CE)_2$ graduates would be most different? Consider both students who go on to college and those who go directly into a working career.

Adapt more readily to their jobs.
Ease in communicating with others.
More satisfied with their work.
Ability to deal effectively with adults.
Understanding of the variety of careers they may or may not want to pursue.
Ability to budget their own time.
Ability to realize a need for personal changes, and the techniques to make those changes.
$(CE)_2$ graduates should be "further along" into learning programs, jobs, already receiving promotions, etc. while others are still "finding themselves."
Better prepared to establish contacts in the community--to use the community as a resource.
Have a more positive outlook toward their high school education.
Confidence in securing and holding jobs.
More career options.
Ability to lock-in on available options in the community.
Decision-making skills.
Desire to reach "ultimate" for each.

Appendix G

ADDITIONAL STUDENT CASE STUDY PROFILES

Three additional case study student profiles are contained in this appendix--Mike, George and Bob. Names have been changed to protect the identity of individual students. Mike, the first case study student to be described, is the student for whom a brief case study was prepared as part of last year's final evaluation report. This summary, therefore, includes Mike's activities and reflections from both program years. The other two case study profiles each cover the student's participation in $(CE)_2$ only during the 1974-75 school year. While Mike and George were rated by the $(CE)_2$ staff at the beginning of this school year as high in self-directedness, Bob was rated low in this area. Bob was a junior in the program while the other two were seniors.

Mike

Background. Sitting in a classroom at Tigard High School (THS) was difficult for Mike in 1972-73. In some classes he was way behind. In math he was always the first to finish a test. "I loved math and could always finish a test in about ten minutes, but I wasn't doing well in my other classes,"* Mike explained.

He first heard about $(CE)_2$ at THS when he was a sophomore. "I really only went to the assembly to get out of one of the classes I didn't like," Mike confessed.

But after listening to the $(CE)_2$ explanation, Mike was quickly sold on the idea. He not only liked the notion of learning on the job, but also thought the program might allow him to work at his own speed. The notion of no grades and no teachers also appealed to him.

Mike took some descriptive materials home to his parents and they joined him for an evening session at the $(CE)_2$ learning center to find out more about the program. Now after two years in the program, Mike is a senior and his parents want his younger brother to get into the program.

Early $(CE)_2$ testing sessions last year verified the inconsistency of Mike's experiences in school. While his reading and language scores were well below the average scored by a randomly selected group of juniors at THS, he showed above average abilities in study skills and demonstrated superior ability in math.**

On a less tangible level, $(CE)_2$ staff members early last school year described Mike as being hyperactive, submissive, lacking in self-confidence and unconcerned about his health and physical appearance when he started the $(CE)_2$ program. He was also judged to have severe writing deficiencies. Consequently, Mike's $(CE)_2$ learning manager devised a learning plan that would build his communications skills (in both writing and interpersonal relations) while encouraging him to explore several career possibilities. Mike's job experiences and projects were designed to capitalize on his existing interests and to broaden them.

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* Unless otherwise indicated, statements in quotation marks refer to comments made by the student during the interview with the evaluator.

** When the term "above average" or "below average" is used in this section it will mean that a student's score was greater than one standard deviation above or below the $(CE)_2$ group mean for that variable, meaning that less than 18 percent of his peers scored above or below that level.

First Year $(CE)_2$ Experiences. A typical day for Mike started at 8:00 a.m., just as in any other high school, but the hours in between varied considerably. When he first arrived at the $(CE)_2$ learning center, Mike said he usually spent some time "fooling around" with the computer before he worked on projects underway at the center.

On his original application, Mike indicated his career preference would be computer operator. This led to an opportunity in $(CE)_2$ to further explore that area and to learn more about the job. During April and May, Mike's second learning level experience took place in the computer department of Firstbank Services. He broke up his time there each day into morning and afternoon blocks, often arriving before his employer instructor did for the morning period. Mike usually spent that time going through computer workbooks. When his employer instructor arrived they went over flow charts together and worked on computer language.

Mike returned to the high school for lunch and a German class he selected as a project. $(CE)_2$ students seldom take classes at the high school but Mike had a special interest in German since his grandparents speak the language.

Following German class, Mike returned to the learning center for an hour of work on other learning activities and then went to Firstbank. "I often stayed there until 5:00 p.m.," Mike said, even though high school hours ended at three.

Mike's activities and interests widened after that first year in $(CE)_2$ but his goal of becoming a computer programmer was reinforced by the learning level experience at Firstbank. The start of a new hobby--collection of computer materials--also occurred during the time he spent at Firstbank. "My employer instructor gave me some books to read that actually started the collection," Mike said.

Mike's interest in animals also was enhanced by his $(CE)_2$ experience. Mike has always liked animals and his family has owned a horse since he was 12 years old. By picking blueberries Mike was able to save enough to buy his own colt two years ago. One of Mike's favorite projects during the year related to his horse. The project was designed to help Mike with Basic Skills and to improve his critical thinking skills. Mike read about breeds of horses and how to train them. He then joined a 4-H group with hopes of training his horse for show.

Several months later, Mike again focused on animals for another $(CE)_2$ project. This time he used the local zoo as a resource, interviewing the zoo manager and doing a thorough study of the Alaskan Brown Bear. Mike also joined an Explorer Scouting Club of volunteers to help at the zoo on a regular basis. "I really like working with the bears," Mike reflected. "They were really playful. Did you know when they rub their hair against the bars it sounds like a violin?" Evaluation of the zoo project, one of the last Mike completed during the year, showed much improvement. The learning manager commented to Mike, "You are getting your projects done faster, and I think you are taking more time than you did at first to do a better job."

Mike got off to a slow start in the Life Skills area. Like some of his peers, he went through a period described by one of the learning managers as "freedom shock." When removed from the more rigid structure normally experienced in a typical school setting, Mike tended to avoid his responsibility to the more "academic" side of his learning program. At first, Mike seldom followed up on commitments and often did not let the staff know what he was doing. By the end of the year, he had improved remarkably in both of these behavior areas.

Through the weekly writing required in maintaining his journal, Mike demonstrated a significant improvement in written communications both in terms of presenting ideas and feelings and in the mechanics of writing. Mike also noted an interesting change in his behavior. "I used to watch a lot of TV and never did any reading," Mike said at the beginning of the following year. "I read two books last year and have completed eight more this summer. Now I go to the book instead of to the television," he added. Mike's favorite reading materials are science fiction.

Mike also observed a difference in his attitude about homework. "After going to school for six hours I wouldn't sit down and do homework. But in $(CE)_2$ I wasn't sitting in a classroom, so I didn't mind going home with some more work on my journal or projects."

Mike's personal development was also undergoing change. Much of this change was attributed to one of his employer instructors, an elementary school teacher, who told him how important it is in the work world to wash and wear clean clothes. Both she and the project staff gave Mike much positive reinforcement when his dress improved. That same employer also told Mike that she was really interested in what he had to say and therefore wanted him to speak slower so he could be understood.

Mike's attendance improved at $(CE)_2$. During the year at $(CE)_2$, Mike missed only six days. This was better than the average absence for others in the program, which was found to be 12.3 days missed during the year, and much improved over his high school attendance.

Like a number of other $(CE)_2$ students in his class, Mike went out on exploration level experiences but completed relatively few other program requirements during the first three months of the school year. By April, however, he was simultaneously working on eight different projects and pursuing a learning level experience at Firstbank. By the time Mike completed his junior year he had finished nine of the required thirteen competencies, explored nine business sites, completed two learning levels and carried through on eleven projects. Two other projects were dropped during the year and one is uncompleted but could be finished in the coming year (see Table 1 for an illustration of Mike's learning activities).

On a more specific level, Mike's comptencies included transacting business on a credit basis, maintaining a checking account, desiging a comprehensive insurance program, filing taxes, budgeting, developing physical fitness, learning to cope with emergency situations, studying public agencies and operating an automobile.

Table 1

TIME CHART OF MIKE'S ACTIVITIES IN $(CE)_2$
FOR 1973-74

Projects		Sept Oct Nov Dec Jan Feb Mar Apr May Jun
Critical Thinking	1	Breeds of Horses and How to Train Them
	2	German class at HS
	3	Math
Functional Citizenship	1	Immigration Laws and Regulations
Personal/Social Development	1	Intergroup Relations-- Communication Skills
	2	Teaching at Elementary School
	3	Shepherding a Comrade
Creative Development	1	Beginning Guitar
	2	Language Arts
Science	1	Zoos--What They Are and What They Should Be
	2	Basic Electricity
	3	Computer Preparation
Employer Sites		
Exploration	1	Automobile Dealership Mechanic
	2	Audiovisual Equipment Repair
	3	Supermarket Stock Clerk
	4	Air Control Manufacturing Accounting
	5	Elementary School Teacher
	6	Housing Development Inspector
	7	City Public Works
	8	Junior High School Teacher
	9	Bank Services Computer Operations
Learning Level	1	Elementary School
	2	Bank Computer Service Computer Operations
Competencies		
Credit	1	X
Checking Account	2	X
Insurance	3	X
Income Tax	4	X
Budgeting	5	X
Physical Health	6	X
Emergencies	7	X
Electoral Process	8	
Government	9	
Individual Rights	10	
Public Agencies	11	X
Employment	12	
Automobile	13	X

Mike did not achieve the same level of success on all of his job sites. However, his performance consistently improved throughout the year. Mike criticized the exploration packages when he started them in the first months of the program, and although he couldn't pinpoint how, said they could be better. His own reliance on the questions provided in the package was noted by the $(CE)_2$ staff with a comment that he rarely followed up on any cues provided by the person he interviewed. The packets reflected Mike's disinterest in the exploration portion of $(CE)_2$ work. They showed little effort and a certain sameness of remarks about his impressions at the various sites.

Mike explored career possibilities at an automobile dealer, an audio visual repair shop, a supermarket, an air control manufacturers, an elementary school, a housing development corporation, a city public works, a junior high school and a bank services company.

Mike's first learning level experience was at the elementary school. At the end of three and one-half months the two teachers serving as his employer instructors indicated concern about attendance, punctuality, initiative in learning and amount of supervision needed to see that Mike's time was used constructively. Mike did show significant improvement in apporpriate dress, personal gromming and quality of work on assignments.

Reports from the second learning level experience--at the computer department of the bank services company--show a marked improvement. The employer instructor there rated Mike satisfactory in all aspects and by the time of the final evaluation gave excellent ratings in ten categories--attendance/punctuality, adhering to time schedules, understanding and accepting responsibility, observing employer rules, showing interest and enthusiasm, poise and self-confidence, using initiative in seeking opportunities to learn, using employer site learning resources, beginning assigned tasks promptly and completing tasks assigned.

During the latter part of the school year, Mike worked on several projects at once. He worked on a project on basic electricity and took a course on "Beginning Guitar" for project credit.

To improve his communications skills, Mike also worked on an intergroup relations project. This project grew out of an awareness by the staff that Mike liked other students but seemed to lack social interaction with his peers and the staff. Reports at the beginning of the year indicated that he appeared dependent and submissive and was an immature conversationalist. In response to these observations, Mike's learning manager negotiated project objectives and activities with him that would help improve his communications skills and help him solve some of his interpersonal problems. At the end of the year Mike noted a positive change related to his communications skills. "I can now speak up in groups," he said.

Mike's unfinished project related to his own experience and interests. He moved to the Portland area from Canada ten years ago and frequently returns to see relatives. The project was on immigration laws and regulations in the functional citizenship area. At the same time, it will help Mike improve his grammar and spelling. Since students have the option of completing a project started during their junior year, when they are a senior, Mike had a chance to finish the project this year.

Of the year Mike said, "It turned out even better than I thought." Things he liked best about the new experience at $(CE)_2$ were working at his own speed, going to a job and having more freedom.

At the end of the year, Mike's tests showed significant increases in both reading and language skills. In the math and study skill areas where he was already above average only slight increases were indicated.

Tests on attitudes, given both at the beginning and the end of the year, indicated positive gains in self-reliance, understanding of roles in society, tolerance for people with differences in background and ideas than his, and openness to change.

Aspirations did not change for Mike. He still wants to go into computer programming after finishing college. "When I started the year I really didn't know too much about computers. I feel now that I know a lot and want even more to make it my career."

Second Year $(CE)_2$ Experiences: First Semester. Between September and midyear, Mike completed three projects, three exploration levels, a three-month learning level in computer technology and was working individually on programmed ILA materials to improve his communications skills. See Table 2 for a time chart for 1974-75. In addition he was enrolled in an alegbra and a geometry class at the high school, attended a Boy Scouts of America Explorer Club class one evening every other week in computers, and worked three evenings a week.

In November both evaluators observed him simultaneously for an hour during his learning level in the computer technology department of an educational research and development laboratory. One evaluator briefly explained the purpose and intent of the observation and asked Mike to go ahead with his normal job site activities. Mike proceeded to organize some notes and materials on a desk assigned to him and spent the remainder of the hour working alone debugging a computer program he had written as part of his assignment. Once during the hour he got up from his desk to ask the employer instructor a question and to get a reference book from him. He also stopped briefly to talk with another employee and to use the computer terminal. During the observation period Mike

Table 2

TIME CHART OF MIKE'S ACTIVITIES IN $(CE)_2$
DURING 1974-75

Projects		Sept Oct Nov Dec Jan Feb Mar Apr May Jun
Critical Thinking	1	⊢ *$(CE)_2$ For You*
	2	
Functional Citizenship	1	G P Gypsum & ⊢ Safety
	2	Field Engineering ⊢
	3	A Week With The State ⊢ Legislature
	4	Where Do I Fit In ⊢
Personal/Social Development	1	⊢ *What Can I Do About Me*
	2	
Creative Development	1	Don't Just Stand ⊢ There - Do Something
	2	Customer Relations At IBM ⊢
Science	1	⊢ *Basic Computer* Programming
	2	I Was A Teenage Scientist ⊢
Employer Sites		
Exploration	1	⊢ Computer Programming At An Educational Lab
	2	Data ⊢ Recording Machine Repair At A Computer Firm
	3	Door ⊢ Tester At Gypsum Manufacturing Plant
	4	Telephone Company Installation And ⊢ Repair
	5	Boat Motor Repair ⊢
	6	
	7	
	8	
Learning Level	1	⊢ Computer Programming At An Educational Lab
	2	Door Tester At ⊢ Gypsum Manufacturing Plant
	3	Data Recording Machine ⊢--- ⊢ Repair At A Computer Firm
Competencies		
Credit	1	FY74
Checking Account	2	FY74
Insurance	3	FY74
Income Tax	4	FY74
Budgeting	5	FY74
Physical Health	6	FY74
Emergencies	7	FY74
Electoral Process	8	X
Government	9	X
Individual Rights	10	X
Public Agencies	11	FY74
Employment	12	X
Automobile	13	FY74

used as a reference "Teach Yourself BASIC" and BASIC reference cards.* He appeared very involved in rewriting part of his program that involved mathemetical computations, the use of arrays and scientific notation.

Mike's employer instructor was interviewed following the observation. He provided valuable insight into the nature of Mike's work, his interactions with the employer instructor and the way in which the employer instructor tailor-made Mike's experiences. The employer instructor stated that Mike had completed a self-teaching course in BASIC computer programming and was working on a long assignment requiring him to convert six digit whole numbers to alphabetic characters. This assignment also required Mike to develop complex flowcharts which he wrote in sentence form on the blackboard, coded in BASIC, and successfully ran on the computer. The purpose of this assignment was to increase Mike's ability to attend to logic and detail. The employer instructor related how he had gotten some background information about Mike from the $(CE)_2$ employer relations specialist but that more in depth information was obtained from talking with Mike and trying him out on tasks to see what he could or could not already perform. Realizing that Mike had had prior experiences that had acquainted him with the general area of computer technology and the role of a programmer, he decided that Mike's greatest need was to improve his understanding of programming logic. This experience was designed entirely differently than one for a $(CE)_2$ student last year who received an introduction to the field of computer technology and learned how to keypunch and operate other equipment.

In addition to learning how to attend to logic and detail, the employer instructor also felt that Mike had shown improvement in accepting responsibility for his own work, being dependable, using time more effectively, accepting and using freedom and gaining confidence in attacking problems and completing goals. While Mike was considered well versed in scientific notation, matrices, subscripting and the ability to work with exponentials, the employer instructor felt that, to be a good programmer, Mike would need more mathematics, improved language ability and greater computer logic. It was also noted that Mike needed general improvement in spelling, sentence structure and verbal skills.

Mike's science project, which centered around computer programming, contained problems to be solved, so the employer instructor provided written resources and personal help when needed. (He added that his general approach in working with Mike was to provide resources so Mike could solve his <u>own</u> problems rather than answer his questions directly. Exceptions were made in cases where the employer instructor felt some essential explanation was needed.)

When Mike first started on the learning level he tended to "jump too quickly to a solution. Since then he has improved in attacking word problems and in logical analysis." Mike had told the employer instructor

* BASIC is the name of a particular computer language.

that his experience at this job site had helped him directly as a paid consultant at the high school developing a computer program called COACH, designed to record athletic data. At the time of this interview the employer instructor reported that he had not yet talked with Mike about future career or educational plans.

Mike's employer instructor gave him good ratings (satisfactory, commendable or excellent) on all areas of his Student Performance Review except for two. He was rated as "improving" in "poise; self-confidence" and "quality of assigned projects."

In talking separately with Mike about his learning level experience Mike described his feeling that the employer instructor was "not a teacher but a mixture of friend and employer." Mike particularly liked the way the employer instructor avoided directly answering questions about programming but instead "showed me how to figure out the answer or look it up." Mike felt he had learned a lot about the logic of programming, vocabulary in computer technology, and what it is like to be a programmer. He indicated that he did everything a programmer must do: write step procedures, debug and run the program, evaluate it and document it. He also kept a list of technical vocabulary he acquired on the job. Having a chance to successfully debug a real computer problem that a fellow employee had encountered "really felt neat." He would like to have stayed longer on this job site but this department was in the process of being phased out.

One of the things Mike still wanted to learn was how a computer works. He was looking forward to learning this soon on his next $(CE)_2$ learning level. His enchantment with computers had also led him to learn about computer programming and the RPG language through an Explorer Scout club organized for students interested in computers.

When asked what things made him particularly suited or unsuited for a career as a computer programmer, Mike responded by saying that he felt he had good math and typing skills but needed improvement in writing. He added that he had improved a lot in writing legibly over the last year as judged by his comparing the writing in his journal early last year with the present writing. This improvement was attributed by him to help he received from the $(CE)_2$ tutor last year and to the opportunity in $(CE)_2$ to write slower while "at (the high school) I had to write faster than my speed." While on this learning level Mike got some insights into the real world of work. He learned that "programming is hard mentally but not physically." Also he recognized "a need for walking around during his lunch hour as a break from sitting."

Mike was very willing to share with the evaluator three of his recent journals and the report from a completed project. Most of his journal entries were factual accounts of his $(CE)_2$ work experiences. They also contained supportive comments to him from his $(CE)_2$ learning manager in response to his journal accounts. Of interest in his preprepared project on "$(CE)_2$ for You" was the fact that unlike many others completing this project, his diagram of the $(CE)_2$ learning center space showed exact footage measurements. In describing the jobs of each of the $(CE)_2$ staff, most students recorded general statements from a

brochure, but not Mike. He and another student teamed up to interview staff members to learn what they do in $(CE)_2$.

The learning manager's assessment of Mike for this part of the year was that he has been "very enthusiastic about the program and highly motivated to get totally involved in it." This enthusiasm was supported by the fact that Mike missed only two days at $(CE)_2$ during the first half of the year. In November the learning manager added that "Mike is on the road to success--he has accomplished the required three projects and has initiated a fourth. He is much more mature in the manner in which he negotiates plans and is a pleasure to work with. Mike is keeping up with his journals and his handwriting is definitely improving!"

Second Year $(CE)_2$ Experiences: Second Semester. During the second half of the year Mike completed seven projects, all four of the competencies needed for his second year, two explorations and two learning level experiences. He was able to complete all requirements on time to graduate with his class. In doing so, he became the first member of his family to graduate from high school with a regular diploma.

During the second semester Mike took a week off from his learning level to spend with his district's state representative at the state legislature on a special placement. During that time he chose one bill under study by his representative, researched it and wrote a one-page statement of his opinion about the bill. He also observed the House of Representatives and Senate in action, assisted the office staff in selecting relevant newspaper articles for research and information files and gained an understanding of the components and responsibilities of his Representative's office.

Mike's special placement was not without problems. He failed to give his employer instructor on his learning level "adequate notification and information...so as not to inconvenience him." He also substituted one activity on his project without notifying his learning manager, had some transportation problems, and stayed an extra week in the capitol.

The second learning level Mike completed was as a door tester at a gypsum manufacturing plant. Mike's employer instructor there indicated that Mike "needs to improve" on "adheres to established schedule" (he missed four days at the site), "quality of assigned projects" (he "waited until the last few days to begin $(CE)_2$ project assignments") and "begins assigned tasks promptly." He was rated as "improving" on "demonstrates appropriate dress/grooming," "seeks feedback concerning performance" and "completes tasks assigned." His employer instructor stated that Mike "showed good aptitude" and showed

> "...good ability and interest in becoming involved when he was here. His dependability (absenteeism) and procrastination in waiting until the last minute to write up his project need improvement. We like (Mike) and hope he will accept our critique as being constructive."

This learning level was immediately followed by another as a customer engineer (repairman) for a large computer company. For the first few weeks at this site Mike spent half of his time out in the field observing customer engineers on call for data recording and associated machine repair. The other half of his time Mike spent observing administrative areas, the dispatch room, and the parts room and taking courses on computer terminals on how to operate the teletype and how customer engineers do their paperwork. After this period he spend almost all of his time out in the field.

Mike was observed with one of his customer engineer field employer instructors one afternoon about one month into his learning level. The first stop was a reserve bank building where a security clearance first had to be granted. Then Mike observed the customer engineer as he tested and repaired a machine which prints magnetic characters on checks. Mike observed and asked questions about machine controls and functions. The machine error was detected with some assistance from Mike. Then, another machine was reported as requiring repair. Mike fed cards into the machine while the customer engineer located and corrected the malfunction. They then returned their attention to the original machine. While the customer engineer continued testing the machine, Mike extracted the machine's manual and repair record from a drawer in the machine and glanced at it. The customer engineer did not have the correct part to fix the machine, so he rigged up a bushing and fixed it temporarily. Upon completing testing of the machine, they took a break and then completed the necessary paperwork.

Meanwhile the customer engineer was paged to another site to repair an 80-column card punch with a malfunctioning card stacker. Again, Mike questioned the customer engineer about the repairs. Upon completing repair of the machine, Mike replaced the keypunch cover and retrieved the incident report (IR) book. After helping the customer engineer to secure codes for the IR, the observation and repair ended.

Mike had the opportunity to work with many different people while at this site. While out in the field, he worked with three different customer engineers. While at the office he worked with different people when he went to various sections. However, he worked with the contact person and primarily with his assigned employer instructor. This employer instructor held the position of Administrative Manager for Field Engineering.

The employer instructor was interviewed immediately following the observation and again at the end of the year following Mike's departure from the site. He stated that through his experiences Mike has gained the specific job-related skill of making engineering changes from on-the-job training. However, he also believed that it would be quite difficult for Mike to be successful in this field because of a lack of adequate basic skills development. In addition, the employer instructor stated that Mike will need at least two years of electronics training, preferably in a trade school.

According to the employer instructor Mike had acceptable appearance, was prompt, and fairly dependable, but more confident than capable. On tests administered by the company at the beginning and end of his training in the area of vocabulary, mathematics and mechanical aptitude, Mike scored below acceptable levels in all areas. His overconfidence and lack of adequate evaluation of his own work was demonstrated on one test with approximately 33 items when Mike told his employer instructor that he throught he did real well but in actuality missed 26 of the items.

Mike's employer instructor believed Mike realistically understands the job of a customer engineer and had shown a definite interest in the area. However, he did not understand his basic skill deficiencies and did not discuss them with the employer instructor. Although he demonstrated a willingness to apply basic skills, he did not show any improvement in this area. He effectively related to adults, "but comes on a little strong" due to his over-confidence. His employer instructor also stated that Mike seemed to understand and trust others and was "pretty impulsive." The employer instructor and Mike only talked on a superficial level about Mike's background, interests and future plans.

Although Mike usually waited to be told what to do and needed to be prodded several times, he generally showed "more initiative than most $(CE)_2$ students" according to the contact person. He had just "a few minor problems" while at the site, including one time when a customer engineer requested that Mike not be sent out with him.

Student Performance Reviews completed at this site reflected many of the above comments. Mike was rated as "needs to improve" on "quality of assigned projects," "poise; self-confidence" and "learning growth." He was rated as "improving" on "good team worker," "judgment" and "uses initiative; seeks opportunities to learn." He was also rated as "excellent" on "reports to employer site on time." However, the contact person was quite disturbed about Mike's failure to notify him about the two week special placement with the legislature and the loss of three weeks from the middle of a learning level experience.

Mike was interviewed again in March and at the end of the school year. He felt that his experiences with the computer company made good use of his time and the tasks were very challenging, perhaps giving him "too much to do." He felt that he was treated like an employee most of the time. Most importantly he learned more about the field of computers, especially this company, and learned specifics about the repair of machines and how the customer engineer relates to the customer. He felt he learned some mechanical and electrical skills and how to communicate with people. He learned just about everything he wanted to learn and strengthened his feelings about entering the field of computer programming. He also felt that this learning level built upon his previous learning level in computers at the educational laboratory.

Mike's lack of a realistic assessment was reflected in these interviews. When asked "What things about you make you particularly suited or unsuited for this career?", he responded "...I get along with people allright...and I have a good mechanical ability...I think most everything

you need to do (well on the job) you can learn." While he felt that he had to improve his communication skills and ability to relate to people in March, by the end of the year he felt that he didn't need to change anything about himself in order to enter this career. However, he does believe he needs some math and improvement in his sentence structure.

Mike's Views of $(CE)_2$. Mike felt that his $(CE)_2$ experiences, especially the learning levels, had improved all of his basic skills. He felt that he had the freedom to do the kinds of things he wanted to do while at employer sites. These experiences, according to Mike, have strengthened his vocational choice in the field he wanted to enter and have caused him to look at educational and training requirements plus some other alternatives. For instance, Mike tried to enter the military, figuring it would be a good source of training in the field of computers, but was unable to because of a medical problem.

By going directly to job sites Mike has gotten a feel for the "real world" of work. He said his work at computer repair-oriented sites furthered his conceptions of the patience necessary when dealing with customers and fine degree of precision needed in the repair of equipment. He also discovered how a customer engineer takes a problem, evaluates it and solves it.

When asked about his work values Mike replied "I figure if I get the right job, I'd work at it and try to do my best...in fact, I'm sure that even though I didn't like the job I'd still do more than I was asked to...I'd work as hard as I could." Although he has always been a responsible person, he feels that his experiences in $(CE)_2$ have made him more trustworthy. Mike also feels that he is now treated more like an adult because of his own attitudes. In fact, he feels he understands himself a lot more now.

Mike's future plans concern trying to get a job in computer programming at an automobile dealership or computer services company. He had previously done some computer work at the automobile dealership in relationship to a project in Explorer Scouts. He also wants more training in computer programming and has discussed these plans with the student coordinator and a secretary at $(CE)_2$. His attitude towards learning is that it may not be fun but it is important.

When asked in which areas he made less growth than he had hoped to, Mike responded "I really made a lot of growth in all areas." He credits $(CE)_2$ for this, finding it more helpful than high school. It gives you the opportunity to "get out and meet more people and get to be able to communicate better with people out in the community."

Most of Mike's experiences at the high school were not too personally rewarding. He did start a geometry class there this year, but had to drop it as he had started late and could not catch up. Although he got along all right with the staff at the high school in the past he felt the teachers there had a "barrier between them and the students." The $(CE)_2$ staff "treat you on a more individual type circumstance...have the time to talk to you." At $(CE)_2$ you can "work at your own speed...don't have to be in the classroom."

Mike recommended the program to most of his friends, although some of his friends had already dropped out of school. He stated "I would have paid to come into $(CE)_2$, I think it's really that good of a program... In fact, I've learned more in these two years (at $(CE)_2$) than I have the last four years at the high school." He did not even ask for reimbursement for his travel expenses because he said he liked the program so much.

The Views of His Parents. When Mike first told his parents about the program they were concerned about what was going to be involved and whether it was a good program and education. When interviewed in March, they felt that $(CE)_2$ has helped Mike to be more mature and know where he is going.

Mike's parents said they were well informed by the $(CE)_2$ staff in all areas. Mike tended to talk to them about his activities in $(CE)_2$, while the only thing he ever talked about at the high school was photography. Mike's career plans have not really changed since he entered $(CE)_2$ and his parents have not tried to influence him, but $(CE)_2$ has helped him to rule out mechanic and truck driving as possible careers.

Since beginning the $(CE)_2$ program his parents have found Mike to be more mature, dependable and enthusiastic. He also became more reflective and concerned about the future. His writing improved and he read more. There are no areas where his parents felt that $(CE)_2$ did not help him and they rated the $(CE)_2$ program highly in all areas.

Test Progress Measures on Mike. Although Mike showed a great improvement in almost all areas of the Comprehensive Test of Basic Skills during the first year of participation, his scores declined considerably during the second year. Especially significant were the decline in Mike's arithmetic applications and study skills scores.

Mike's attitudinal scores all showed a positive gain over the two year total period, but also tended to decline during the second year of participation. On the semantic differential, Mike scored significantly below the $(CE)_2$ mean at FY 75 posttest on the community resources, adults, learning and work scales.

Mike showed continued growth over the two year period on the work, self-reliance, communication, role, and trust scales of the Psychosocial Maturity Scale. He was significantly above the $(CE)_2$ posttest means on the work, role, and social commitment scales and below average on only the openness to change scale. The openness to change score also showed a significant decline over the year.

The staff rated Mike on seven student behaviors. At the beginning of the year he was significantly above the $(CE)_2$ mean on "applies a knowledge of his/her own aptitudes, interests, and abilities to potential career interests" and below the mean on "understands another person's message and feelings." At posttest time he was still below the $(CE)_2$ mean on this latter behavior as well as on "demonstrates willingness to apply Basic Skills to work tasks and to avocational interests."

Over the course of the two years in the $(CE)_2$ program Mike's scores on the Self Directed Search (SDS) showed little change in pattern, although the number of interests and competencies did expand. Overall, realistic (R) occupations decreased and enterprising (E) occupations increased as his code changed from RCI (where C is conventional and I is investigative occupations) at pretest FY 74 to ICR at pretest FY 75 (a classification which includes computer operators and equipment repairers) to CEI at posttest FY 75. However, the I was only one point stronger than the R and the CER classification includes data processing workers. Thus, Mike's SDS codes appeared very representative of his desired occupational future.

Evaluators Reflections. Mike's dramatic declines in attitudes and basic skill scores reflect behavior changes which occurred during the second half of his second year of the program and were detected by a number of people. In February at a student staffing meeting his learning manager reported of Mike that "no progress is seen in this zone with projects... still elusive...coasting right now...may end up in trouble." The prescription was to "watch him--make him produce...find out where he is." However, at the end of the next to last zone in mid-May the report was still "...the elusive butterfly! (Mike) needs to get himself in high gear to get everything completed on time!!!" Since the posttesting was completed before this time, Mike probably coasted through the posttesting as well.

Another piece of data suggesting his lack of concern and involvement during the second half of his senior year was attendance. Although he missed only two days the first half of the year, he missed thirtee days during the second half.

Mike showed a definite change in some of his personality characteristics over the two years he spent in the $(CE)_2$ program. In the beginning of the program he was totally lacking in social skills and self-confidence. By the time he graduated, he had made great strides in his social skills (although there was still much room for improvement). However, his self-confidence had grown to the point of overconfidence. Indeed, the employer instructor on his last learning level spent a good deal of time trying to get Mike to make a realistic appraisal of his own capabilities.

When interviewed after graduation, Mike was working six evenings a week at a restaurant where he had worked part time for the last year. He hopes to work there for about a year, working his way up to cook, and then go to a business college for a year to study computers.

George

Background. George first learned about EBCE from a former $(CE)_2$ student who was videotaping a play that George was in at the high school. The videotaping activity was part of that student's $(CE)_2$ experience. This impressed George for he wanted to work on things that interested him and not be bound by school bells. After discussing $(CE)_2$ with his best friend at the high school, they both decided to join the program. George's mother was at first a little skeptical about his joining $(CE)_2$ because she felt it might hurt his chances of going on to college. She called a $(CE)_2$ staff member on the phone to check on this point but remained somewhat concerned for a while.

George started in $(CE)_2$ as a junior and returned his second year to finish the program as a senior. Prior to entering $(CE)_2$ George had not held a paying job but was active in choir, drama and the language club at Tigard High School. His involvement in these first two areas at the high school continued while George was in $(CE)_2$. He also completed a German class at the high school.

George and $(CE)_2$. Pretest data this year indicated that George is above average in reading comprehension, arithmetic concepts and application, and in the use of references. He is also above average in his openness to change and in his attitude toward the concepts of "community resources" and "learning."

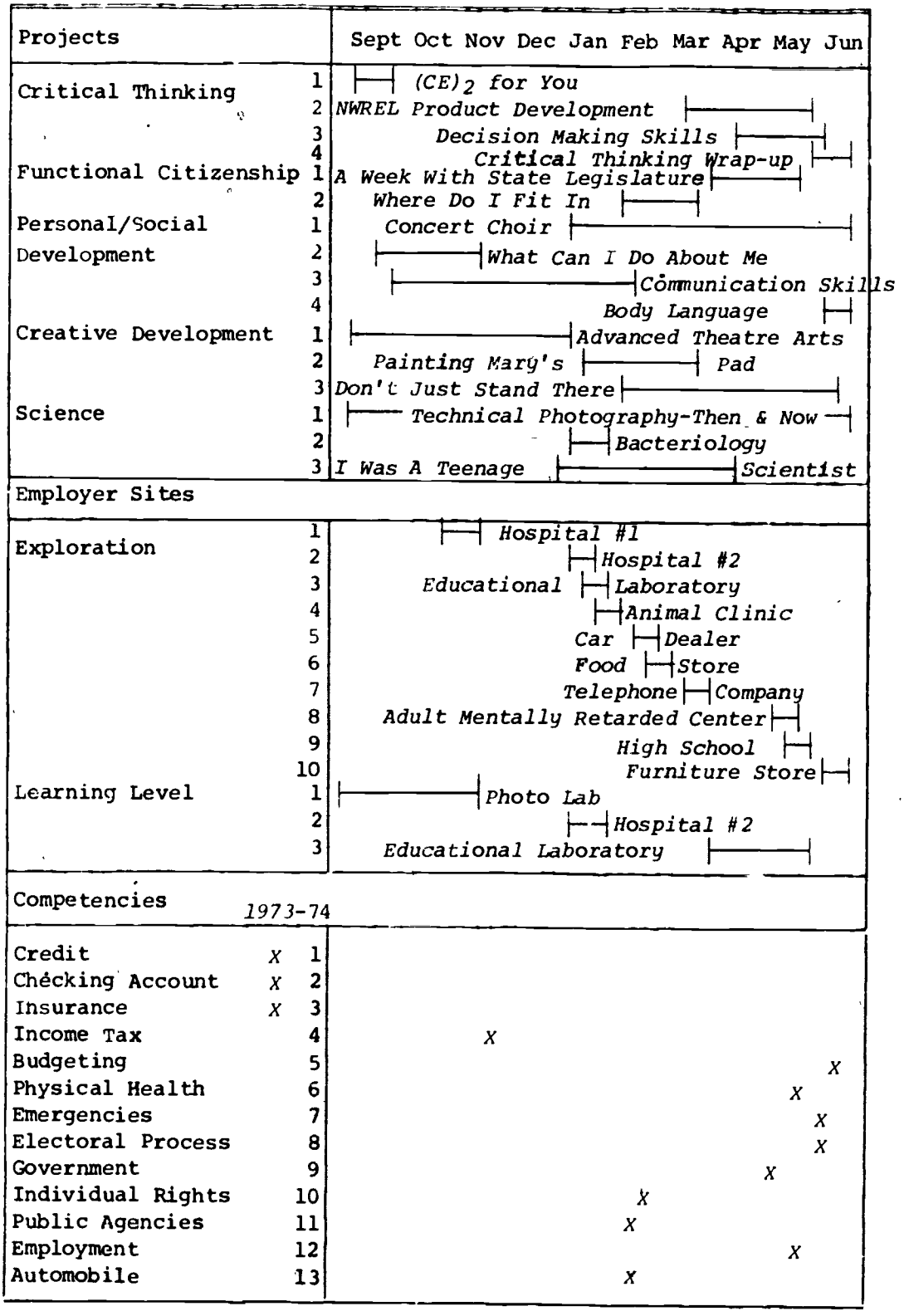
In the fall, the $(CE)_2$ employer relations specialist indicated that, "Although his career interest is in medicine, he willingly explores other fields as well as health occupations. George has superior basic skills, but is very slow in completing site-related written work. Threats of loss of credit (for not completing work) seem to be the catalyst that keeps him moving. This year George decided to develop skills in photography while waiting for another medical site. It is recommended that George be encouraged to continue developing new skills while pursuing his academic interest and that he be given strict deadlines to meet in completing his work." Given the results of the Self Directed Search George chose to explore careers in areas such as a physician and photographer. For a description of George's community and learning center activities see Table 4.

One of George's career interests, photography, was introduced toward the end of last year when George did an exploration level at the photo laboratory of a large company. His interest in photography and in this particular employer site led him to request and engage in a learning level experience there during the first three months of this school year.

This evaluator arranged to observe George at the photo laboratory in November. Upon arrival at this site the evaluator met George and explained the purpose for the observation. George said that he had intended to develop some black and white prints in the darkroom and was waiting for the employer instructor to arrive to furnish the chemicals needed. Although George expected the employer instructor to return at 1:00 p.m. he didn't arrive until 2:30 so the observation period involved

Table 3

TIME CHART OF GEORGE'S ACTIVITIES IN $(CE)_2$



George taking the evaluator on a tour of the facilities and explaining his activities there. He also showed some of the photography books in the employer instructor's library that he had borrowed as references in doing a project on the history of photography.

The interview that same afternoon with the employer instructor took approximately a half hour and shed light on his perceptions of what George had done at the photo lab outing. The employer instructor was not sure what George had hoped to accomplish at his site but described George's activities such as learning darkroom development and printing, setting up props in the studio and accompanying him on some photography assignments in the local area.

When George first came to the photo lab he possessed very few skills in photography. While on this learning level the employer instructor felt that George had acquired a better understanding of photograph terminology as well as darkroom development skills. In addition to acquiring photographic skills the employer instructor also stated that George gained oral communication skills in answering the telephone and appeared to gain self-confidence and in the ability to deal with a variety of "funny" people such as writers, designers and advertisers. Part of the "real world" experience that the employer instructor felt George gained while at the lab was an awareness that "many tasks in photography aren't glamorous but routine and boring." He said that this is the type of awareness that most young people don't possess when they first decide to enter photography as a profession.

The employer instructor was not sure how interested George was in actually making photography a career and hadn't taken time to discuss George's educational or vocational plans with him. He added "I probably wouldn't encourage him to become a professional photographer because it's too competitive a field."

In early December this evaluator conducted an extended interview with George. Some of the questions related to his experiences at the photo laboratory. In addition to mentioning his activities there already listed by the employer instructor, George talked about learning techniques of studio lighting and about attempting to complete three $(CE)_2$ projects related to his experiences there. These projects dealt with photography as art, the history of photography and studio photography. Some critical thinking activities also occurred. For example, George was asked by his employer instructor to select, from a large collection of slides, those that he felt would be best for a training seminar. He had to apply the criteria of tehcnical quality and relevance.

Although George found his experiences at the lab to be "generally challenging," he felt that he often didn't make good use of his time there. He found "a lot of slack time" and sometimes worked on things of interest not related to projects. He would like to have learned more about developing and printing but often the lab technician did not have answers and the employer instructor was often out. Some of this information he obtained by reading technical referercés recommended by

his employer instructor and by experimenting on his own in the darkroom.

George has decided not to become a professional photographer "because of the uncertainty of a steady income." The laboratory had tried to hire an extra photographer one time and George got an opportunity to talk informally with some freelance photographers applying for this job. He found many who were unsuccessful for a long time in locating work. Also he mentioned that the lab had laid off their technician the prior week because of a cutback in funds. George said that in a regular high school he wouldn't have known about the local surplus of photographers unless he had personally applied for a photography job.

When asked if he had gotten any insights into the "real world" of work while on the learning level, George said yes and was able to cite four examples: (a) the tight job market for local photographers, (b) "social life and goof-off periods are a natural part of a work day," (c) the psychological techniques some bosses use to motivate their employees to do work, and (d) short cuts that some workers use to reduce costs and save time.

During March, George spent several days on an exploration at a small food store. He did this exploration because he was interested in what it took to run a small store and thought he might want to run his own business sometime. According to George, the employer instructor was present the first day and he interviewed her. She explained her procedure for explorations which was mainly to "tell about what she did." During the second day the employer instructor was absent because of sickness. Her husband ran the store and instead of allowing George to watch, he allowed him to "actually do things." During the first day George felt he was treated as a visitor while the second day the husband treated him as a trainee or fellow worker. During the day George stocked and faced the shelves, refilled the cooler, did ordering, learned the inventory and tax procedures, worked the cash register, learned how to control shoplifting, and rotated the magazines and stocks. When the employer instructor returned and found what George had done, she offered him a job working there part-time on the night shift. When he was offered the job he "asked to start above the regular salary range because I was willing to work the odd hours."

One of the interesting $(CE)_2$ projects that George engaged in this year was titled "A Week with the State Legislature" and dealt with his opportunity to work closely with two state representatives at the state capitol. During the period George: became familiar with the technical aspects of the legislative process; learned about the components and responsibilities of a state representative; wrote a one-page statement expressing his views on a bill he had researched for the representative; observed the Senate and House in action; assisted the office staff in selecting relevant newspaper articles for research and information files; prepared a directory of selected officials; and kept a daily log of his activities, observations and personal reactions. George and another $(CE)_2$ student who had a similar experience with another representative, felt that the experiences were so rich that they successfully negotiated a second week of work at the capitol. Some interesting quotes from George's daily log reflect his experiences. "(Mike) and I have both

learned most of the floorplan of the building and we have the blisters to prove it." Later in the week he wrote, "I've learned of what a fast moving and generally surface world this is. I don't think this is where I want to be. It's nearly impossible to be a simple person and lead an 'average' life here. Every minute is a life or death crisis, and pressure is ever building."

An employer site where George had done an exploration and later returned in March for a learning level was an educational laboratory where he engaged in writing and editing activities. During an observation of him there in March, George was writing quietly at a desk, reading materials and typing. During the forty minute observation, an employee also working at a desk in the same room asked him how he was doing and walked to his desk to discuss the material George had been writing. She asked him several questions to see if he understood certain directions related to his writing task. They had a brief nonwork related conversation and she returned to her desk. George continued his task of editing, simplifying and cartooning a draft of an information request form.

At this site, the employer instructor kept a record over a five week period of the amount of time he spent working with George. His records indicated that he had spent approximately 12½ hours in planning and negotiating the various tasks George was working on, a half-hour discussing his regular job with George, and eight hours in casual conversation about nonwork and personal areas. In addition to this employer instructor a second employee interacted frequently with George.

George has developed a number of specific skills at various learning levels while in $(CE)_2$. For example at a hospital laboratory he learned how to: do a gram-stain, differentiate between baccilli and cocci organisms, differentiate between gram positive and negative, operate a microscope, streak plates and do a throat specimen. At an educational laboratory, he learned to: paste up a camera ready copy, make format and design decisions, outline and organize content, and initiate an ERIC system search for information retrieval.

George also learned a number of things about himself from his $(CE)_2$ employer site experiences. For example, he has found that for him "doing things I really enjoy is more important in a job than the money it pays." Another insight he gained is that he is able to tolerate some pressures but not others that are related to unanticipated demands. Watching employer instructors react to pressure has influenced how he reacts.

In addition to work at employer sites George reported having used a number of community resources. He visited the public library, courts, local colleges and state legislature and attended public meetings. George also participated in public speaking engagements regarding $(CE)_2$. He talked to school staff at Crescent Valley High School in Corvallis, the Kiwanis Club in Tigard, the Oregon State Department of Education, to parents and students in the 1974 $(CE)_2$ orientation, and to other groups of visitors to $(CE)_2$.

George's Parent's View Toward $(CE)_2$. In March the evaluator interviewed George's mother. When she first heard about $(CE)_2$ she was hesitant because the program was new and she had nothing to compare it with. However, she trusted her son's judgment about wanting to enter $(CE)_2$. She now likes the program but wishes she had been informed earlier that George was behind schedule in his assignments. In her meetings with the $(CE)_2$ staff, she feels she has received "100 percent cooperation" and has received full information about her son's strengths and weaknesses. The only area she feels she doesn't understand well enough is whether the $(CE)_2$ program qualifies students for college. She likes the idea that the staff have made clear to her son what is expected of him and has left the decision up to him about completing his work or leaving the program.

By April her son has not yet made a firm career choice. He likes a lot of things. His explorations of various jobs has helped. It gives him an idea of what careers to eliminate such as drafting and architecture. He has gotten good recommendations from his employer instructors. She feels that through $(CE)_2$ George has become more aware of his personal rights and the responsibilities that go with them, has become less shy and is better able to meet and mingle with people, and has improved his public speaking due to his talking to $(CE)_2$ visitors.

George's Views Toward $(CE)_2$. George, in discussing his experiences in the program this year, said, "$(CE)_2$ requires a lot of motivation that I have a problem with. I find it hard getting work started. It's teaching me what I need to know although it's making it difficult for me. At the high school I could get good grades without doing reports by getting good grades on tests. I can see now that the way $(CE)_2$ does it is the way it is in the real world."

Because George was so far behind in completing his $(CE)_2$ requirements by the end of the first half of the year, he was required to have conferences with the staff and his mother and the project director were contacted. Despite frequent warnings, he remained behind until finally in March he was suspended from $(CE)_2$ for a week while he was required to produce a work schedule for himself to catch up on past-due work, and to decide if he really wanted to remain in $(CE)_2$. In an interview with the evaluator after the suspension, George said, "I never really thought it would happen to me. It made me realize what was going on...and forced me to schedule myself to be caught up or else." During the week, he reported having worked on three projects but not completing any. The staff, he said, were not too satisfied with what he accomplished. The following week he set up a more specific time chart organized by individual activities within a project rather than working on only one deadline for an entire project. This, he felt, was more effective for him.

George indicated his feeling that his written and oral communication skills increased this year. "I'm better able to express myself in less words. For example, on the front and back of the Exploration Package my writing is becoming more compact. The Journal has also influenced my writing. I can talk freely with almost anyone now. For example, when I spent two weeks with the state legislators (in Salem) I surprised some of them by

talking in a personal way with them. In the past I was afraid to talk with important people." Also related to his communications skills, George felt that he had learned "how to cut people off from their long conversations when necessary." He also saw various benefits from his explorations. The food store exploration led to a job which he said he might keep while going to dental school. He felt other explorations have allowed him to make a possible career out of a former hobby such as writing. The exploration of photography he said switched the other way--from a career possibility to a hobby.

In relating Basic Skills to his career experiences he felt he used reading more than math. He said he read books, learned new technical vocabulary such as in the area of bacteriology, and looked up terms in science books that he heard on the job site and then discussed the meanings with his employer instructor.

The job site experiences gained this year helped George to learn more about himself and work values. As a result of his activities at an educational laboratory and at an activity center for mentally retarded adults where he felt the staffs worked closely together, George said, "I've become more aware of a sense of loyalty to an organization and being part of a team." He also felt personally satisfied by producing something--a written product at the laboratory and the feeling that mentally retarded adults understood him at the activity center. He also realized that he likes to be kept occupied and left one exploration site where he didn't have enough to do in order to spend time at another where he could be kept busy.

After graduating from $(CE)_2$ George plans to attend college and then enter a dental school program. George indicated a number of reasons why he wanted to be a dentist including "the independence of the work, the money, the personal satisfaction it gives, the geographic area I could work in, the type of work itself, the need that it meets, and the job security." He has discussed his future plans with the $(CE)_2$ student coordinator who is getting him an application for college.

George made some interesting comparisons between his time at the local high school and his time at $(CE)_2$. The[illegible]f are "much more personal and informal at $(CE)_2$. They are more inv[illegible]ved in what I'm doing and what's going on with me as a person...I didn't know what my role was at the high school. At $(CE)_2$ I know what's expected of me and when. At high school I was another face in the crowd. I'm more of a leader at $(CE)_2$." Also George felt that scheduling at high school limited the areas he could explore whereas more areas are open to explore at $(CE)_2$. "I'm like a curious kid peaking into a cupboard and seeing what's there."

Of the thirteen competencies George was required to complete in $(CE)_2$ he completed three of them in the first three months of last year, one the first semester of this year and the remainder during his final semester. In fact he waited until May to complete three competencies and until June to finish the remaining three. Because he finished less than the required ten projects last year he was required to complete the balance plus ten for his senior year. Of the sixteen projects done this year,

George waited until June before completing five of them. In addition to working on projects and competencies, George completed ten explorations this year and three learning levels. See Table 3 for the titles of projects, competencies and employer site experiences that George engaged in this year.

George's Progress as Shown in Test Scores. The pre- and posttest scores for George indicate that he maintained his above average performance in Basic Skills over the two years that he was in $(CE)_2$. The Self Directed Search showed that his vocational preferences over the year last year remained high in the areas of dentist and insurance investigator but that he added an interest in becoming a writer and working on an educational program. These last two areas were probably stimulated by specific learning levels that he had during the second semester. In completing the SDS, George indicates an interest and perceived competency in a large number of areas which appear consistent with interview data collected from him. This was both an asset and liability for him since he enjoyed a number of explorations but also found himself becoming interested in new projects before completing others that he had already initiated.

On the Psychosocial Maturity Scale, George showed a positive growth over the year in the areas of identity and in communcation. This appears consistent with information collected from his questionaire, interviews with him, and from an interview with his mother. On the Semantic Differential, George increased at least ten points over the two years in his concept of "me", "school" and "work" and decreased in his concept of "adults" and "decision making." Over the two years his concept "learning" remained high.

The staff pre- and post-ratings of behavioral traits showed George to be in the average range. He increased one point or more on the five point scale on only one trait, that of applying Basic Skills to work tasks and to avocational interests. He did not decrease by more than a point on any trait.

Evaluator's Reflections. The case study of George provides some good insights into the nature of $(CE)_2$. The program is intended to appeal to a wide range of high school students including those who, like George, are academically talented and hold aspirations for professional careers. Students in $(CE)_2$ are allowed to take courses at THS and integrate them into their total learning plan.

Job sites for $(CE)_2$ students seem to vary widely in terms of the amount of structure and close supervision they provide for students. The match between an individual student's need for structure and the structure existing in a given job site environment are important considerations in successfully placing students. In George's case he seemed to enjoy the less structured environment and the freedom to experiment on his own. Other students would probably have become highly frustrated with such a placement.

At least some students in $(CE)_2$, such as George, are able to gain important insights into themselves and their values by reflecting on their

"real world" experiences at employer sites. It appears that there are a greater proportion of students this year than last who are able to learn much about themselves from their experiences in $(CE)_2$.

The fact that George was willing to speak up to an employer instructor when she offered him a job and ask for a higher salary because he was willing to work the odd hours appears to be a good sample of his feeling self-confident, at ease with adults and experienced in the negotiating process.

Some $(CE)_2$ students are able to prioritize and categorize their occupational preferences through learning experiences, particularly through Explorations at employer sites. For example, George's food store exploration led to a job which he might keep while going to dental school. Other explorations allowed him to make possible careers out of former hobbies such as writing, while the exploration of photography prompted him to view that as a hobby instead of a career possibility.

The need to motivate students to complete the program requirements applies not only to the less talented students but also to some with high academic ability such as George. The pressure and guidance from the project staff helped him to realize that he must produce "or else." The staff were unwilling to settle for less than quality work.

Bob

Background. Bob entered $(CE)_2$ as a junior. Early in his sophomore year he heard about $(CE)_2$ but was not sure he wanted to join until spring. During the 1973-74 year he felt that the regular high school had "wiped him out." He stated that his grade point average dropped from 3.5 to 1.6 between his freshman and sophomore year and he wanted "out." His mother liked the idea that in $(CE)_2$ Bob could work on his own and make his own decisions. Leaving the high school meant separation from friends, some of whom discouraged him from leaving. He felt he didn't know much about $(CE)_2$ until he arrived because he missed the recruiting orientation at the high school. Recalling his early thoughts about $(CE)_2$, Bob at first believed it was going to be easy. "Now I know it isn't, because of the requirements I have to meet."

Before entering $(CE)_2$, Bob had had several paying jobs, including cashier and projector operation assignments for a theatre, and work in electronics. Although he had not participated in any school or community organizations he enjoys motorcycle riding, camping and outdoor recreation. The $(CE)_2$ August testing indicated that Bob had above average ability in arithmetic concepts and study skills involving the use of references and graphs. In reading comprehension and arithmetic applications, Bob is average.

Bob and $(CE)_2$. A $(CE)_2$ staff member's assessment notes in October state that "his employer instructors report that he is an enthusiastic participant and approaches each new task with interest and zeal. Bob is very slow in completing written work. He spends much of his learning center time socializing and very little in independent study. Bob's $(CE)_2$ participation must be closely monitored...We will work with him on planning his time and scheduling and meeting appointments." Another staff member also felt that "time management seems to be a difficulty for Bob...and that he needs staff encouragement."

One of the features of $(CE)_2$ to help Bob and many students like him with "time management" problems is referred to as the program year action zones, part of the student accountability system. Basically it consists of establishing fixed minimal expectations for students in each of nine time periods throughout the year. Close monitoring and feedback are given to each student and parent. A penalties and rewards system helps to round out the student accountability system. For example in February Bob failed to sign in and out at the learning center, missed an employer site without calling to notify them, missed a scheduled appointment with a staff member and was behind in some of his $(CE)_2$ work. As a consequence, he had a conference with the $(CE)_2$ staff, was required to submit a specific work plan to schedule his time, was monitored more closely, put on probation and was required to make up some missing time. A copy of the work plan that Bob developed was given to his parents and to his project director so that they could all be informed of his plan and help him to follow it.

Over the year Bob completed: six projects (and worked on two which were not completed), five explorations (two others were not completed), one learning level and eight competencies. A description of these is contained in Table 4.

Table 4

TIME CHART OF BOB'S ACTIVITIES IN $(CE)_2$

Projects		Sept Oct Nov Dec Jan Feb Mar Apr May Jun
Critical Thinking	1	├──┤ *$(CE)_2$ For You*
Functional Citizenship	1	├──── *Where Do I Fit In*
Personal/Social Development	1	├┤ *What Can I Do About Me*
	2	*Milk & Honey for Fun and Profit* ├────
Creative Development	1	├──┤ *Don't Just Stand There Do Something*
Science	1	*I Was a Teenage* ├──┤ *Scientist*
Science	2	*Nutrition-Organic Foods* ├────
Other	1	*ILA* ├──┤ *Communication*
Employer Sites		
Exploration	1	├┤ *Equipment Control Manufacturer*
	2	├┤ *Marine Supply Company*
	3	├ *Chevrolet-Dealer's Service Dept.*
	4	├──── *Aircraft Construction Company*
	5	├┤ *Audio-visual Company*
	6	├┤ *Music Equipment Company*
	7	├┤ *Food Cooperative*
Learning Level	1	*Food Cooperative* ├────
Competencies		
Credit	1	X
Checking Account	2	X
Insurance	3	
Income Tax	4	X
Budgeting	5	
Physical Health	6	
Emergencies	7	X
Electoral Process	8	X
Government	9	
Individual Rights	10	X
Public Agencies	11	X
Employment	12	X
Automobile	13	

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In November this evaluator observed Bob as he reported to an employer site for the first day of his exploration level at that site. Bob arrived at 9:10 a.m. and apologized for being a little late because of car troubles. The employer instructor, who supervises the manufacturing section, introduced himself and spent ten minutes telling about the nature and history of the company that produces musical equipment. This was followed by a thirty minute guided tour of the site. Bob took some pictures during the tour and observed employees at work. At the end of the tour the employer instructor stated that he had some work to finish and allowed Bob to continue observing employees working in the electronics section. Bob appeared comfortable in observing them unobtrusively and asked a few questions of one employee.

Two weeks following the observation of Bob, this evaluator had an extended interview with him. Bob stated that he had returned to the music equipment company for two more days of exploration in December and intended to write up the Exploration Package and return to the site to have the employer instructor there review and approve the write up. Bob related that he had always had an interest in electronics and sound. He had heard before that this company didn't emphasize quality but found from his exploration that they did. Bob was more interested in what the company did than in information about a particular career in that area since he already had a background in acoustics, electronics and cabinet making. One thing that Bob would have liked to learn from his exploration that he didn't was about new designs for sound equipment. He recognized that the company's security over new design information prevented his getting this information. However, he continues to get information about sound equipment through magazines, books, writing to companies and talking with people. He has done these things in connection with building his own equipment and reported that he has a whole room at home full of electronics and sound equipment magazines.

Bob felt that production jobs in the sound equipment business would be interesting to him as a short term job but not on a long term basis. He likes the "informal opportunity to talk with fellow employees, not having to punch in and out for breaks and lunch," but felt "this type of work could become boring." However, the equipment design positions would be a long term interest for him.

Similarly, Bob has explored a machine shop assembly worker position at an aircraft company and found a real dislike for the job because it has a "production-push atmosphere, is dirty and boring." The design of equipment and supervision of repair would interest him and he discussed the training and work experience steps necessary to obtain such a position with that company.

In discussing basic skills required for the jobs Bob had already explored, he felt that he already possessed the essential basic skills required but would need on-the-job training.

In the future Bob hopes to take several courses at a community college while maintaining a full-time job "that pays okay and where people treat me right." He has already discussed his future plans with parents,

friends and a few $(CE)_2$ staff. The $(CE)_2$ staff with whom he has talked have listened to his point of view but "haven't been of too much help yet because I need to do more thinking on my own first."

Bob's Views Toward $(CE)_2$. A few things in $(CE)_2$ bother Bob. He dislikes the delay in getting job sites and the conflict sometimes existing between project requirements and job site work. He has found it difficult to negotiate changes in his preprepared projects with his learning manager. Bob felt that a better orientation of students new to $(CE)_2$ is needed and that it took him three or four weeks to understand what was really expected of him in $(CE)_2$. Bob also had criticism of some of the employer instructors at exploration sites. "A lot of the people you get around...they just don't talk very much. They won't tell you very much or even try to make the job interesting. And I've been in a few troubles at job sites where I've just been bumped around and just been told to go here and go there and...by myself...Bored to death...Falling to sleep at one spot." On the other hand, Bob likes the way "$(CE)_2$ deals with you from the start and helps you work on things whereas as the high school they wait until you get into trouble or until the end of the semester and then give you feedback." He felt that some of the greatest strengths of $(CE)_2$ are in learning about different jobs and in learning how to get along well with others.

In rating the effectiveness of $(CE)_2$ on a questionaire in May, Bob indicated that he felt his $(CE)_2$ experiences were of little or no help in learning how to find and keep a job and were of little help in improving reading skills. However, he rated his $(CE)_2$ experiences as most helpful in: getting along with others, improving communication skills, becoming acquainted with a broad range of resources to use in gathering information for work and decision making, in learning to take responsibility for his own actions and in becoming more open to ideas and values different from his own.

Bob spent a good deal of time this year in the community. In addition to his explorations and learning levels at employer sites, he reported visiting the public library about 30 times during the year. He also visited a museum, a local college or university and attended a public meeting. Bob stated that if he had it to do over again, he would definitely decide to participate in $(CE)_2$. In comparison with the regular high school program, he felt that $(CE)_2$ provided him with much more opportunity to learn about occupations, about the same opportunity for general learning and somewhat greater motivation to learn.

Bob's career preference changed several times over the year. His $(CE)_2$ application completed in April 1974 indicated interest in being a conservation officer or theater operator. Interests at the beginning of the year from the Career Information System questionnaire included small business operator, drafting, quality control, radio repair and truck driving. In a fall interview with the learning manager, Bob indicated an interest in auto repair, projector operation and electronics. In interviews with the evaluator at several points during the school year, Bob indicated he was interested in electronic design and also in operating a food cooperative or small store with a friend. By the end

of May, Bob retained his interest in these two career areas but also mentioned an interest in receiving four weeks of union training in explosives and blasting. His latest use of the Career Information System (CIS) computer terminal led him to consider the job of "powderman." Bob stated that it pays about $1,000 per month and involves moving a lot which he likes. "It may become an obsolete job in a few years but it would be fun to do for awhile. I don't see sticking with one job forever." According to Bob, he used the CIS on his own about once a week during the first semester and about three times the second semester.

A learning level at a food cooperative occupied several months of Bob's time during the second semester. During this period the evaluator observed his working at the coöp two times, interviewed two of his employer instructors and discussed the learning level experiences with Bob. While at the coöp his employer instructor certified that he had acquired or practiced skills in: operating a cash register, using grocer's scales, ordering from wholesale, stocking shelves, checking incoming orders against a bill of lading, bulk packaging, marking up prices, dealing with the public, investigating health regulations, researching wholesale files that list where and what they supply, observing the bill paying and bookkeeping system, and computing monthly operating costs. In addition Bob indicated that he had investigated safety regulations regarding the coöp, read old newspaper clippings in the file cabinets that traced the history of this particular coöp, and read some journals dealing with food nutrition and trends in the coöp movement.

While at the coöp he became a regular member and felt he was treated like a regular coöp volunteer. After learning all the jobs performed by volunteers he was given responsibility for training new volunteers and according to his employer instructor "they seemed to understand his directions well." She also indicated on a written student performance review that Bob "is slowly gaining self-confidence and can use the skills and knowledge he is acquiring without supervision. He is an unusually fast learner." In an interview she indicated that Bob's improvement in self-confidence and in his ability to deal with people were two of the most important things he had gained from his experiences there. She added that "he is more mature than most $(CE)_2$ students. I have enjoyed working with (Bob) and can rely on his handling the store when I'm not there."

Since Bob is thinking of possibly operating his own food coöp with a friend after graduating from school, he has spent extra hours at the coöp and has undertaken several $(CE)_2$ projects related to the coöp. One of these projects deals with an introduction to operating a small business in the area of the food cooperative; another deals with food nutrition. In looking for materials on nutrition he used some materials at the coöp and planned to obtain others from the Hillsboro library. While talking with Bob about his possible future in operating a coöp he indicated his general interest in this area was related to his desire to be "near to people" and that he liked the simple approach used in running this kind of business. "It's not much of an income maker but enough to keep you going." In discussing more about his system of values, Bob stated

that he wasn't interested in big pay or in having luxury items.

An area that Bob felt he had grown a lot in this year was personal communications. "I can talk with people I need to now...I'm better able to let people see my point of view. I feel that I'm more open minded than my parents. For example, when my friend and I are designing something we are open to suggestions from others and try to consider all points of view before beginning the project."

Bob's attitude toward adults and work values was further revealed when he said, "Many adults don't care how something works they just use it. Younger people are more into how it works. The adults at (a control equipment manufacturer where he had an exploration) are exceptions. I'm glad I know something about electronics now so if I work on an assembly line, I'll get more job satisfaction because I'll know how things work."

Parent's Views Toward $(CE)_2$. How do Bob's parents view $(CE)_2$? When they first heard about the program they felt it would be good for Bob to learn by doing. His mother wished the program was available when she went to school. Although they were pleased with what Bob was getting from the program they wished he would do more with it and explained that "he doesn't finish things like paperwork." His parents have had several meetings with the $(CE)_2$ staff and appreciate the fact that the staff are "very open and don't try to cover up things."

While Bob seldom talked to his parents about high school or $(CE)_2$, he has talked about his experiences at one music equipment company and at a food coöp. His mother indicated that Bob doesn't know what career he wants but $(CE)_2$ is helping him "narrow the field."

Bob's Progress as Shown in Test Scores. A review of Bob's pre- and posttest scores on the Comprehensive Test of Basic Skills indicates that he went from a grade level equivalent of 9.5 in reading comprehension to 11.5 over the year. In arithmetic concepts he decreased slightly from 13.6 to 13.3 and in arithmetic applications he climbed from 9.6 to 13.4. His pre- and posttest study skills scores were above the 13th grade level. On the Self Directed Search, Bob indicated a better ability to discriminate between careers he liked and those he didn't like by the end of the year. Also he rated himself higher in teacher ability and in math ability at the end of the year. On the semantic differential, Bob rated the concept of adults lower at the end of the year but rated school and decision making as higher than at the start of the year. The change in attitude toward the concept school increased 27 points (2.5 standard deviations) over the year which indicated that he felt more positive toward $(CE)_2$ than toward his prior schooling. The 9 point decrease in attitude toward the concept of adults may be due to a greater familiarity and therefore realistic view of them. His attitude, however, toward community resources which would include employer instructors, tended to increase slightly over the year. On the Psychosocial Maturity Scale Bob decreased slightly over the year in his identity score and increased in his score regarding tolerance for people with different views than himself. The pre- and post-staff ratings of

student behaviors indicated that Bob, while low in certain behavior traits at the beginning of the year, had increased at least one point on a five-point scale in: knowledge of his own aptitudes, interests and abilities; ability to apply this knowledge to potential career interests; ability to initiate program-related behaviors; and his understanding of another person's messages and feelings. He did not decrease more than a point on any of the traits.

As a returning senior in $(CE)_2$ next year, Bob is looking forward to engaging in a learning level in electronics and to continuing in the program.

Evaluator's Reflections. Bob's recurring problems in managing time are typical of many students in $(CE)_2$ as is his preference for employer site experiences as opposed to other program expectations. His case illustrates some meaningful "real world" understanding that $(CE)_2$ students are gaining at certain employer sites such as the ability to identify a "production-push atmosphere," or that certain jobs are "dirty and boring."

Bob's vocational uncertainty is also typical of a number of adolescents. However, unlike a number of other vocational or career education programs, the $(CE)_2$ staff did not push him into a premature decision about a single career but instead encouraged him to explore a number of options. The use of Holland's SDS and its underlying theory of career development indicated the high congruence of career interests expressed by Bob and explored this year through $(CE)_2$. Bob has used the Career Information System more frequently than other $(CE)_2$ students this year and seems to have been influenced by the information provided by this system.

Although $(CE)_2$ students are not paid for their work experiences at employer sites it is interesting to note that some of them were given adult responsibilities. For example at the food coöp, Bob was given responsibility for training adult volunteers and was also placed in charge of running the store when the manager stepped out. These experiences undoubtedly influenced Bob in changing his self-estimate of his teaching ability over the year from low to high on the Self Directed Search.

Another point of interest uncovered by the case study of Bob and several other students are the effects that seems to come from the employer site experiences of working with a variety of adults. Students such as Bob appear to become more perceptive in viewing adults in a realistic way and in seeing how widely different they can be. For example, this case study quoted Bob's stereotype perception of adults as being willing to work with things without understanding how they operate and yet Bob was able to identify some of the employees he had observed as exceptions to his generalization.

Appendix H

EVALUATION OF CASE STUDY STUDENT PROJECTS AND PRODUCTS

Thirty-nine student projects and 31 student written products* completed by the six case study students selected by stratified random sampling were reviewed and evaluated by an external evaluator (a curriculum specialist from a neighboring district). Nineteen were preplanned projects and 20 were individually planned projects. A Student Project Evaluation Form (this Appendix, pages H 3-5) was developed by NWREL to record ratings of project appropriateness, content, level of integration and individualization and to record ratings of the quality of the product. Profiles on each of the six students were prepared and given to the evaluator to provide a background against which to rate the project and product.

The average rating of student projects on all dimensions was very high (above 4.50 on a five-point scale), but the reviewer's evaluation is perhaps best summarized in the reviewer's own words after spending six days on this task.

> My reaction to these $(CE)_2$ student projects as a learning activity is one of enthusiasm and support. I especially liked the manner in which on-site career exploration and experiences were integrated with constant reinforcement of learning of the basic skills in reading, mathematics, and communications. So often students are unable to see the need for or the relationship of these skills to success in the world-of-work until they come face to face with it in an actual work situation. These project activities offer to students not only the opportunity to explore interest areas for possible vocational careers, but also they allow them a chance to become aware of vocational areas that do not interest them for one reason or another. Perhaps the greatest impact that I see these projects making is the bringing into a realistic focus many of the concepts, terms and life skills objectives that students have heard about and read about but which have seemed so meaningless in the traditional educational environment.

The reviewer cautioned that the ratings of how well the projects capitalized on student interests and how tailored they were to student abilities (questions seven and eight in the Student Project Evaluation Form) may be misleading because of her limited knowledge of the student's involved.

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* A student project is a record of a student's planned learning experiences in one of the Life Skills areas that are usually carried out on employer and community learning sites. A product is the student's output from the experiences gained and is often in the form of a written report. For a more detailed description of student projects see pages 223-258 of the EBCE Curriculum and Instruction Handbook, dated December 1974.

However, based on the knowledge she did have, she felt the projects "could be made appropriate to practically any level of ability. The criterion levels in some cases seemed a little high, but not unattainable."

The reviewer's ratings of student products were slightly lower than those for the projects but still very positive (all above 3.79 on a five-point scale). Very few products received a negative rating.

An analysis of the student time involved in the completion of the products shows that 36 percent of the projects were begun during the first three months of the year, 33 percent during the middle three months and 31 percent during the last three months of the school year. Eighteen percent, 39 percent and 43 percent of the projects were completed during the same three time periods. The amount of time (calendar days) it took to complete the projects ranged from 6 to 266 days with the average length of time being approximately two months (59.8 days).

Correlational analysis revealed no relationship between the elapsed time a student spent on the project and the products rating. The dates of all projects were deleted from the projects and products so that the independent rater was unaware of when each project was completed. The ratings of products begun later in the year however were higher than ratings for products begun earlier in the year. Chi-square analysis indicated no significant differences in ratings received by the preplanned projects versus the individual projects.

Shown on the following pages is a tabulation of ratings on the Student Project Evaluation Form. Suggestions made by the outside reviewer will allow for the refinement of this form for the coming year and for improvement in the reviewing process itself. These suggested changes will be incorporated in the EBCE Evaluation Guide Handbook being developed by NWREL this year.

CASE STUDY

Student Project Evaluation Form

Student Name _____ Life Skills Area _____

Project Title _____

Starting Date _____ Completion Date _____ Total Time (days) ____

Preplanned _____ or Individual _____

PROJECT EVALUATION

1. Are the project activities designed to help the student meet the specific objectives of this Life Skills area?*

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
1**			1	36	4.86

Comments:

2. Do the project activities integrate skill development in multiple Life Skills areas?*

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
			5	8 26	4.77

Comments:

3. Do the project activities meaningfully incorporate the use of Basic Skills in a way to promote growth in communications, reading or mathematics?*

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
			2	11 26	4.81

Comments:

* See Program Outcome Goals

** Numbers shown below the 1-5 scale represent the frequency of ratings at that level. In some cases the reviewer rated certain projects between whole numbers such as 4.5.

4. Is there a relationship between project activities and Career Development outcome objectives?*

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
		2	3	9 25	4.73

Comments:

5. Was the employer or community site used productively?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
		1	2	5 23	4.79

Employer or Community Site Not Used -- 8

Comments:

6. Do the project activities utilize a variety of resources in a integrated and meaningful way?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
		1	5	11 22	4.69

Comments:

7. Is the project designed to capitalize on student interests?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
1		2	7	10 18	4.50

Comments:

8. Are the activities and the criterion levels for those activities appropriate for the student's abilities?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
		1	3	4 31	4.82

No Criterion Levels Specified -- 0

Comments:

* See Program Outcome Goals

PRODUCT EVALUATION

9. Does the student product have the technical quality (e.g., legibility, grammar, clarity, etc.) that you would expect of a student of his/her ability?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
4	5	9	8	5	4.08

Comments:

10. Does the student product communicate well?

Definitely No				Definitely Yes	Mean Rating
1	2	3	4	5	
1	1	4	3	9 6 7	4.03

Comments:

11. Does the student product indicate that he/she reached the criterion level specified for each activity?

Definitely No					Definitely Yes	Mean Rating
1	2	3	4	5		
1 1	1	1	4	6 8 3 7		3.82

Criterion Levels Not Specified -- 8

Comments:

12. How would you rate this product in terms of the student's demonstrated ability to integrate his/her experience?

No Indication of Integration				Definitely Integrated	Mean Rating
1	2	3	4	5	
1 1		2	8 5	11 3	3.90

Comments:

13. Given this student's ability, what is your overall evaluation of the product?

Definitely Negative				Definitely Positive	Mean Rating
1	2	3	4	5	
1	1	4	6 10	7 2	3.79

Comments:

Appendix I

FY 75 (CE)$_2$ EXPLORATIONS AND LEARNING LEVELS BY OCCUPATIONAL OUTLOOK HANDBOOK CLASSIFICATIONS

Explorations		Learning Levels	
1. Industrial Production and Related Occupations			
Cabinet Maker	7	Auto Body Painter	1
Auto Body Painter	3	Cabinet Maker	1
Gunsmith	3		
Machinist	3		
Assemblyman	1		
Blacksmith	1		
Photographic Processor	1		
Photographic Retouching	1		
TOTAL	20	TOTAL	2
2. Office Occupations			
Attorney	11	Insurance Adjustor	3
Insurance Adjustor	6	Attorney	2
Bank Teller	5	Accountant	1
Clerk	3	Computer Programmer	1
Legal Investigator	3	IBM Field Engineer	1
General Office	2		
IBM Field Engineer	2		
District Attorney	1		
Legal Secretary	1		
Cashier	1		
Accountant	1		
Secretary	1		
Keypunch Operator	1		
Computer Programmer	1		
Data Processing	1		
TOTAL	40	TOTAL	8
3. Service Occupations			
Patrolman	11	Day Care Worker	3
Beautician	8	Fireman	3
Fireman	6	Animal Grooming	1
Telephone Operator	7	Telephone Operator	1
Animal Boarding	4	Patrolman	1
Animal Grooming	4	Beautician	1
Day Care Worker	3		
Waitress	3	TOTAL	10

Explorations		Learning Levels	
3. Service Occupations (continued)			
Cook	2		
Deputy	1		
Dispatcher	2		
TOTAL	51		
4. Education and Related Fields			
Teacher	30	Teacher	10
Librarian	3	Teaching Assistant	1
		Librarian	1
TOTAL	33	TOTAL	12
5. Sales Occupations			
Grocery Clerk	7	Grocery Clerk	2
Sales Clerk	6	Sales Clerk	1
Real Estate Sales	2	Real Estate Sales	1
Auto Sales	2	Lumber Sales	1
Gas Station Attendant	2		
Warehouse Sales	1		
Motorcycle Sales	1		
Lumber Sales	1		
TOTAL	22	TOTAL	5
6. Construction Occupations			
Electrician	2	Framer	1
Carpenter	2		
Building Contractor	1		
Framer	1		
TOTAL	6	TOTAL	1
7. Transportation Occupations			
TOTAL	0	TOTAL	0
8. Scientific and Technical Occupations			
Lab Technician	21	Lab Technician	6
Game Manager	2	Game Manager	1
Music Recording	2	Draftsman	1
Animal Training	1		
Draftsman	2		
Media Productions	1		
Audio-Visual Specialist	1		
TOTAL	30	TOTAL	8

	Explorations		Learning Levels	
9.	Mechanics and Repairmen			
	Mechanic	34	Mechanic	9
	Welder	6	Telephone Splicer	1
	Telephone Installer	4	Telephone Installer	1
	Telephone Splicer	3	City Maintenance	1
	City Maintenance	3		
	Auto Body Worker	1		
	AV Service and Repair	1		
	IBM Maintenance	1		
	TOTAL	53	TOTAL	12
10.	Health Occupations			
	Nurse	10	Dentist	2
	Emergency Medical Technician	9	Optometrist	1
	Veterinarian	8	Veterinarian	1
	Dentist	6	Emergency Medical Technician	2
	Hygienist	2		
	Optometrist	2		
	Physician	1		
	Physical Therapist	1		
	TOTAL	39	TOTAL	6
11.	Social Scientists			
	TOTAL	0	TOTAL	0
12.	Social Service Occupations			
	Counselor	17	Counselor	5
	TOTAL	17	TOTAL	5
13.	Art, Design and Communications			
	Florist	9	Florist	1
	Interior Design	5	Photographer	1
	Disc Jockey	9	Reporter	1
	Photographer	15	Journalist	1
	Journalist	2	Designer	1
	Designer	8		
	Landscaping	2		
	Writer	3		
	Newspaper Reporter	4		
	TOTAL	57	TOTAL	5

	Explorations		Learning Levels	
14.	Other			
	Farmer	4	Manager	3
	Raceway Manager	1	Musician	1
	Navy Recruiter	2	Small Business Operator	1
	Manager	7	Warehouseman	1
	Football Player	1	Army Recruiter	1
	Warehouseman	2	Travel Agent	1
	Small Business Operator	1		
	Army Recruiter	1		
	Travel Agent	3		
	TOTAL	22	TOTAL	8

Appendix J

BEHAVIORAL OBJECTIVES OF THE $(CE)_2$ COMPETENCIES

In Chapter II of the evaluation report data are presented regarding the number of students who were certified by community people as having successfully completed each of the 13 $(CE)_2$ competencies. To give the reader a better understanding of the scope of work involved, the activities and criteria required for each of the competencies are listed in this Appendix.

1. Transact Business on a Credit Basis.

   A. The student will explain to the satisfaction of a bank officer the terms and conditions of the bank's credit card, including an exploration of credit limits and interest charges.
   B. The student will, when presented with hypothetical or real data about income and current debts, complete an installment contract to the satisfaction of a bank loan officer.

2. Maintain a Checking Account in Good Order.

   A. Given the form, the student will make application for opening a checking account. This will be done to the satisfaction of a bank officer.
   B. The student will demonstrate to the satisfaction of a bank officer the ability to write a check correctly.
   C. The student will demonstrate a basic understanding of checking account procedures to the satisfaction of a bank officer.

3. Provide Adequate Insurance for Self, Family and Possessions.

   A. Given a set of hypothetical data about family members, possessions, income and age, the student will explain the conditions of the plan for each category of insurance (health, life, automobile and property insurance plans) to the satisfaction of an insurance agent.

4. File State and Federal Income Taxes.

   A. Given a set of hypothetical data including income, occupation, interest payments, family deductions, property and age, the student will complete the required forms to the satisfaction of an income tax official.

5. Budget Time and Money Effectively.

   A. The student will plan, implement and record his schedule for a period of seven days. He will budget time for program activities, leisure time, travel and family responsibilities. His plan and record of the implementation will be completed to the satisfaction of the learning manager.

B. Using his own family and household for basic data, the student will plan a budget for three months to the satisfaction of a home economist.

6. Maintain the Best Physical Health, and Make Appropriate Use of Leisure Time.

A. Given an assessment by a qualified expert (certified P.E. instructor), the student will identify health and recreation needs; e.g., weight reduction or gain, increased strength and endurance and recreational use of leisure time. Based on his physical profile, the student will develop a physical fitness and recreational program leading to improvement in the deficient areas. The student will be certified by the expert when he reaches his goal in each of the deficient areas.

B. The student will select two activities which he will participate in over a period of three months. He will outline his plan, and submit a report on the completion of the activities to the satisfaction of the learning manager.

7. Respond Appropriately to Fire, Police and Physical Health Emergencies.

A. The student will outline fire emergency procedures, by participating in a seminar, to the satisfaction of a local fire officer.

B. The student will explain to the satisfaction of a police officer appropriate citizen action in at least five emergency situations.

C. The student will successfully pass a basic first aid test and participate in a first aid seminar.

8. Participate in the Electoral Process.

A. Given hypothetical data about age, occupation and residence, plus information about candidates, the student will complete the registration and ballot forms to the satisfaction of a registrar.

B. Given two kinds of ballot measures, the student will discuss his analysis of the pros and cons to the satisfaction of a representative from the League of Women Voters.

9. Understand the Basic Structure and Function of Local Government.

A. The student will select a representative from each of the legislative and executive branches of local government, and will explain the representative's role and responsibilities to the satisfaction of that official.

B. The student will observe the legislative and executive branches of local government in operation by attending a city council meeting.

C. The student will select an issue where lobbying efforts were clearly involved, and will explain the effects of the lobbying efforts to the satisfaction of a professional special interest lobbyist.

10. Explain Your Own Legal Rights and Responsibilities.

A. The student will explain to an attorney the various rights guaranteed him by the constitution.
B. Given hypothetical or real problems involving the abuse of the consumer, the student will explain consumer protection laws and the use of consumer protection agencies to the satisfaction of a representative of a consumer protection agency.

11. Make Appropriate Use of Public Agencies.

A. The student will make application for and secure a Social Security Card.
B. Using hypothetical data the student will complete application for Unemployment Compensation.
C. Using information available at the county courthouse the student will list the following information about his present place of residence:
   1) assessed valuation
   2) property tax amounts
   3) zone designation
   4) type of sewer service
   5) all assessments against that property (sewer, street lighting, fire district, water district, roads, etc.)
   6) all covenants

12. Make Application for Employment and Successfully Hold a Job.

A. The student will prepare a resume, have an interview and be hired by a personnel manager, or employer, or an employment service counselor.
B. For a specified period of time, the student will perform to the satisfaction of the employer, adhering to normal working conditions, rules and regulations expected of employees.

13. Operate and Maintain an Automobile.

A. The student will pass the Oregon State written and driving tests to the satisfaction of the Vehicle Division Examiner and will secure a driving permit and license;

or:

Upon parent request, the student will pass the written portion only, to the satisfaction of the learning manager.
B. The student will develop a maintenance program for a real or hypothetical automobile to the satisfaction of an automobile mechanic. The student will demonstrate the changing of a tire, replacement of fuses and describe winterizing techniques.
C. The student will describe to the satisfaction of a representative of the local police department, the emergency techniques used in case of auto failure on a freeway.
D. The student will demonstrate defensive driving techniques to the satisfaction of a driver training instructor. (Except for student selecting second option in A above--then verbal explanation acceptable.)

E. The student will list to the satisfaction of the learning manager all of the costs of purchasing, insuring and maintaining for one year, a real or hypothetical automobile, including interest, maintenance and depreciation costs.

Appendix K

TABULATED RESPONSES TO THE EBCE IMPLEMENTATION TRAINING WORKSHOP QUESTIONNAIRE

The questionnaires from the week-long EBCE Implementation Workshop in March are tabulated below. The results are given below for the eight participants.

1. Prior to arriving here, what, if any, were your expectations for this workshop?

2. How well were your expectations for this workshop met? (circle one)

   If you circled 1 or 2, please explain why and what might have been changed to improve the workshop.

(The expectations for each participant when stated, are given in the left column. The mean ratings of participants and suggested improvements, if any, are given in the right column.)

	Very Poorly 1 2 3 4 5 Very Well
--many discussions; leisurely pace and enjoyment	1 2 (3) 4 5 (could have been less planned so that there was more freedom to make some choices)
--see the whole operation as much as possible, see kids working and talk with staff members	1 2 3 4 (5)
--not really sure what the expectation was going to be; I had no information as to the content of the workshop	1 2 3 4 (5)
--assistance in handling localized concerns; development of skills in utilization of the instruments	1 2 3 (4) 5 (more explanation of rationale behind instruments and processes)
--have experiences that would help me understand the implementation of the (CE)$_2$ program, both technical and administrative	1 2 3 4 (5)
--hoped that I would come away with a thorough understanding of the (CE)$_2$ program and how to implement it in...	1 2 3 (4) 5

--expected to see the $(CE)_2$ program in operation which would show me how the various instruments (handbooks, etc.) are used; the workshop should give me a look at $(CE)_2$ as to how it all fits together.

Very Poorly — Very Well

| 1 | 2 | (3) | 4 | 5 |

(take each staff person and have them take the workshop participant through the use of all instruments used in the program which I think would give the participant a better idea of how the prog works; this was done to some degree but not a total picture.)

--to have direct contact with people involved in the projects: the LMs, etc.

| 1 | 2 | (3) | 4 | 5 |

(more time for direct contact with LM)

Average rating was 4.0

3. What additional information or technical assistance, if any, would you like to receive from us during the next several months?

--any new ideas and material updates (2)
--examples of different projects with names blocked out
--help with answering specific questions as we develop our program and staff are identified (2)
--help in setting up an evaluation system (this has already been discussed)
--visual showing all the elements of the $(CE)_2$ program
--visual showing the "flow" of activities in the Basic Skills area, Life Skills area and in the Career Development area
--need latest edition of Employer/Community Resources
--we have a grasp of the $(CE)_2$ program as we want to make it

4. Please list your perceptions of the major strengths, if any, in this week's workshop.

--well organized (many a little too much)
--people very friendly and knowledgeable (2)
--involvement with parents, employers, students, staff members (3)
--doing similar things that the students do (2)
--actually doing a project using the concept of developing a program (2)
--learning by doing
--getting together and exchanging ideas (2)
--good to observe so as to sort out aspects that might not work in our setting (2)
--good for potential staff to be in on the workshop
--summing up in direct terms and ideas what the program is about
--putting the ideas together so that they can be related to other school programs

5. List below your perception of the major weaknesses, if any, in this week's workshop.

--rather have met parents and EI in a regular discussion plus luncheon
--first aid was a waste of time for me
--sometimes project activities did not seem meaningful (i.e., list examples of parts of project that used Basic Skills)
--need students to explain projects.
--not being able to see more employer sites (although we went to the fire station with the kids and talked to employers at lunch)
--more time with the LSAF as to how better using them in the development of projects
--evaluate as to the time factors (some days not enough time--reshuffle areas)
--more time with students
--it took so long to really know the personalities--some we never did get to know
--LSAF development had little meaning until we started with an actual employer site
--suggest that some method be devised to assume that all trainees have a thorough understanding of the $(CE)_2$ program before trainees depart
--I didn't want to spend the time playing school; I wanted to observe and analyze and think through the program to see how we organize and develop it for our school
--pointing out problems, small and large, that may be encountered
--working directly with LMs in the functional use of their material and operation

6. Circle the number behind each statement which indicates how well you currently feel you are able to do each of the following tasks. Feel free to add any specific comments where appropriate.

a. Ability to represent the $(CE)_2$ program to students, parents and employers

Poorly Prepared				Very Well Prepared
1	2	3	4	5
0	0	1	4	3

Average rating was 4.25

Comments:

--I think I will know better after I go home and sort my notes
--particular strategies might be identified and developed towards this purpose
--I didn't think a stone was left unturned
--I recommend that each program director practice giving a $(CE)_2$ presentation to replication staff before return home
--one of the main objectives of my going to the workshop

b. Ability to complete the preliminary planning phase of EBCE implementation at your site.

1	2	3	4	5
0	0	1	4	3

Average rating was 4.25

Comments:

--this part is a little clearer than (a) as (b) is a stronger goal than (a)
--this was a great achievement
--this experience gave me many insights to planning
--N/A to my position; gained better understanding of what was done and why so important

	Poorly Prepared 1	2	3	4	Very Well Prepared 5
c. Ability to complete the planning strategies for program start-up at your site in September of 1975	0	0	1	5	2

Average rating was 4.12

Comments:

--same feeling (that this goal was clearer than (a))
--some apprehension, but no problem with NWREL support personnel

7. Circle the number behind each statement which indicates how well you feel you understand each of the following concepts:

	Do Not Understand 1	2	3	4	Understand Very Well 5
a. the basic philosophy of EBCE	0	0	0	1	7

Average rating was 4.88

b. the advantages and disadvantages of locating an EBCE program within the parent high school	0	0	0	2	6

Average rating was 4.75

c. career assessment procedures (CIS, SDS, etc.)	0	0	1	5	1

(one participant missed Monday's session and did not rate this item)

Average rating was 4.00

d. basic uses of the Exploration Package	0	0	1	2	5

Average rating was 4.50

e. application of the Learning Site Analysis Form	0	0	2	4	2

Average rating was 4.00

		Do Not Understand				Understand Very Well
		1	2	3	4	5
f.	skill building and special placement employer site levels	0	0	0	7	1
		Average rating was 4.12				
g.	learning level activities	1	2	3	4	5
		0	0	0	5	3
		Average rating was 4.38				
h.	the competencies	1	2	3	4	5
		0	0	1	2	5
		Average rating was 4.50				
i.	how to integrate Basic Skills into activities	1	2	3	4	5
		0	0	0	5	3
		Average rating was 4.38				
j.	how to use the journal	1	2	3	4	5
		0	0	1	3	4
		Average rating was 4.38				
k.	the guidance and accountability system	1	2	3	4	5
		0	0	0	5	3
		Average rating was 4.38				
l.	Life Skills projects	1	2	3	4	5
		0	0	1	4	3
		Average rating was 4.25				
m.	importance of the negotiating process	1	2	3	4	5
		0	0	0	1	7
		Average rating was 4.88				

Appendix L

TABULATED RESPONSES TO THE NONAPPLICANT STUDENT QUESTIONNAIRE

The tabulated responses of 62 Tigard High School students who requested a $(CE)_2$ application but did not return it are displayed in Appendix L.

Name _____

1. Sex

54* ☐ 1. Male

46 ☐ 2. Female

2. Current year grade level

82 ☐ 1. Sophomore

18 ☐ 2. Junior

3. Why did you decide not to apply to $(CE)_2$ for next year? (Check as many reasons as apply.)

31 ☐ 1. I prefer the type of education given at Tigard High School (THS).

24 ☐ 2. I did not want to leave my friends at THS.

18 ☐ 3. I was afraid I would be less able to particiate in extracurricular activities at the high school if I joined $(CE)_2$.

28 ☐ 4. I was not really sure what I would be required to do in $(CE)_2$.

25 ☐ 5. I am concerned that $(CE)_2$ might not properly prepare me for college.

3 ☐ 6. I am not interested in learning more about careers.

1 ☐ 7. I don't plan to finish high school.

10 ☐ 8. I forgot to return the application.

6 ☐ 9. I never intended to return the application.

49 ☐ 0. Other (please write in why) (see attached)

_____

4. What were your parents' reaction to your joining $(CE)_2$?

17 ☐ 1. They encouraged me to join $(CE)_2$.

18 ☐ 2. They were against my joining $(CE)_2$.

* Numbers represent the percent of students responding to each alternative.

38 ☐ 3. They neither encouraged or discouraged me for joining $(CE)_2$.

19 ☐ 4. They were not aware of my interest in $(CE)_2$ or what the program is about.

13 ☐ 5. Other (see attached)

5. What do you plan to be doing one year after high school?

10 ☐ 1. Working full-time.

4 ☐ 2. Entering an apprenticeship or on-the-job training program.

14 ☐ 3. Going into regular military service or to a service academy.

10 ☐ 4. Attending a vocational, technical, trade or business school.

22 ☐ 5. Attending a junior or community college.

35 ☐ 6. Attending a four-year college or university.

21 ☐ 7. Working part-time.

10 ☐ 8. Other (travel, take a break)

18 ☐ 9. I have no idea what I'll be doing.

6. Was the information presented to you about $(CE)_2$ adequate to answer your questions about the program?

72 ☐ 1. Yes

28 ☐ 2. No

☐ If no, what other information would have been helpful?

(see attached)

7. If you are now a sophomore, do you think you would be interested in joining $(CE)_2$ for your senior year only?

13 ☐ 1. Definitely yes

16 ☐ 2. Probably yes

38 ☐ 3. I don't know

25 ☐ 4. Probably no

8 ☐ 5. Definitely no

Thanks for your help!

L-2

Question #3, Other

--I don't know what type of career I want.
--I want to go to PCC and get out early.
--I don't think my parents would like it.
--I wanted more precise information on what I would be doing.
--I never got around to talking to my parents.
--Please send us more information.
--It's something new.
--Lost my application.
--I was coaxing my parents--when they finally said yes, it was too late.
--I just wanted to find out what $(CE)_2$ was.
--My parents were against it.
--I'm moving to North Dakota.
--My father visited $(CE)_2$ and thought it was a program for drop-outs.
--I'm not sure I would learn the information and skills I want.
--I'm moving to Seattle.
--I am going to PCC next fall.
--Father said no--to stay in school.
--THS could better prepare me for careers in the future.
--My parents didn't approve.
--Seems like an easy way out.
--I heard that sometines you have nothing to do and that it didn't work well for everyone.
--THS can better prepare me for my career.
--Parents weren't sure it was worthwhile.
--Too much freedom!
--I didn't want to worry about a career at that point.
--I miss too many days of school.
--Parents wouldn't let me.
--I wanted specific THS courses I couldn't get at $(CE)_2$
--I wanted to get cut on work release.
--I want to go to college.
--I wanted to learn more about $(CE)_2$ first.
--I wanted to graduate early and wasn't sure I could in $(CE)_2$.
--I was afraid I couldn't get into the college of education.
--I was on vacation.

Question #4, Other:

--They wanted to find out more about $(CE)_2$.
--Parents said it was my decision.
--Didn't really talk to them about it.
--My parents finally said yes, but it was too late.
--They said North Dakota would have a program like it.
--They said to do what I want.
--They thought it was OK but respected my reasons for not going there.
--Said I should wait 'til my senior year.
--They felt that only hoods attended. It's a cop-out and I agree.
--They thought it was great but didn't push me.
--Wanted me to go senior year.
--They weren't sure I would get college credits.
--They think it's an exceptional program but left it up to me.

Question #6, If NO:

--The school's procedure of learning.
--What would be required of you.
--I wanted less vague examples of what I would be doing.
--If you don't like it, can you go back to high school?
--Any.
--I was late to the presentation and would like to know more about it.
--What school activities can I participate in?
--I didn't know enough to convince my parents it wasn't a drop-out program.
--More on the type of work you do.
--I didn't understand how you get credits.
--What effect will it have on going to college?
--Not sure what is required.
--Didn't really understand what the program was.
--Not sure what is required.
--What kind of jobs could you work at?
--Didn't have time to find out more about $(CE)_2$.
--I wasn't sure what you'd do at certain jobs.
--How it prepares students for further academic careers.

Appendix M

CHARACTERISTICS OF FIVE EBCE PILOT SITES FOR FY 76

Contained in this appendix are descriptive data for five EBCE pilot sites located in Billings, Montana; Colville, Washington; Hillsboro, Oregon; Kennewick, Washington; and Kodiak, Alaska. The information presented for each site includes a description of their actions in 1974-75, plans for 1975-76 and observations by the NWREL EBCE implementation staff. Information covers the areas of (a) advisory board, (b) school staff, (c) number and characteristics of participating students, (d) participating employers, (e) facilities, (f) funding, (g) parent involvement, (h) school board action and (i) EBCE materials received and used. This information is complete for each site through June, 1975.

	1974-75 Action	1975-76 Plans	NWREL Observations
Advisory Board	Formed in March; has had two meetings; will lay out what they perceive their tasks to be	Continue	The group needs leadership from their director to clarify their tasks and know what the direction of their responsibilities is to be
School Staff	Orientation meetings with high school counselors, alternative night school staff, principals; low-key orientation to the rest of the staff	As the program expands more awareness sessions will be held with other high school staff	Alternatives begin slowly in Billings; and, they seem to have to start at the ground level; succeed and then begin to be recognized as existing; the alternative night school is an example and it has done well because it worked quietly at first and now because it is successful is being known and accepted
Students			
Numbers	Actually used materials with 5 students	Approximately 25 students will be in a total EBCE program and 30 special education students will participate in explorations only	Billings has expanded in a different direction this year than had anticipated; there was less emphasis on "pure" use of materials and more on organizing to expand into a total model by fall; this is a good place to try the materials and/or total model; they understand and accept the EBCE concepts: there is more flexibility in granting credit; creative staff; a lot of students eager to finish up
Characteristics	Primarily used the materials with the alternative night school; these kids were not dropped from the other high school rolls but needed to find an alternative (pregnant girls, kids with day jobs, those wanting to finish early)	Same	

	1974-75 Action	1975-76 Plans	NWREL Observations
Employers	Selection of a full-time ERS; development of recruitment forms and procedures; development by fall of a bank of 150 LSAFs; recruited currently 10 employers and has completed 7 LSAFs; employers serve on the advisory committee	Expansion to meet needs of the program as it expands	Again, Billings has proceeded in a different direction than originally planned; the full-time ERS is knowledgeable about the concept
Facility	Use of site of alternative night school	Same	Very adequate
Funding	Regular school funding	Possible vocational rehabilitation funds	Adequate
Parents	Little contact; parent on advisory committee		
School Board Action	Agreed to submit letter of intent for materials use proposed to NWREL; no further action	???	The alternative night school is proceeding to implement EBCE in an already existing structure--there seems to be no need for further involvement with the school board
Materials Received	All handbooks, one complete set of (CE)$_2$ forms and materials, NIE and NWREL brochures and information packets	Continue to receive handbooks as revised and reprinted	
Materials Used	Handbooks, brochures, LSAF and Exploration Package	Same	Good use with virtually no variations

COLVILLE

	1974-75 Action	1975-76 Plans	NWREL Observations
Advisory Board	Formed early strong support out-spoken	Continue	Effective
School Staff	Worked with both junior/ senior high staff	Attempt for integrated staff/program	Systematic approach to orientation of staff
Students			
Numbers	Recruit 25 which are a representative sample of high school	If many resources are available, expand program	Looks like a good sample of a small school
Characteristics	Representative sample	Same	Appears they will achieve their goal
Employers	Goal is 3 "stations" per student; 10 sites have been recruited to date	Expand in accordance to need	Good community support; organized method of recruitment
Facility	Old board room to be refurnished for use; other school facilities available to students	Same with expansion if necessary to accommodate numbers	Adequate
Funding	Written as a part of the tax levy; voted on in May and failed; to be resubmitted in June; also written as a part of a state proposal for funding through a $(CE)_2$ proposal to OE	Proposed as a part of the schools' operating budget	Action has been taken early enough and in appropriate ways; state accreditation problems and failure of levys to pass has caused unavoidable problems for the $(CE)_2$ program
Parents	Included on the advisory committee-signature required for student's entrance into prog m; orientation rights pr vided	Same	Because of the small size of the community there is easy access to parents; adequate

	1974-75 Action	1975-76 Plans	NWREL Observations
School Board Actions	$(CE)_2$ has come before the board three times; the final action is to "go" with the program, if there is money	???	Given the funding and accreditation problems, the board has been fairly supportive of the program plan
Materials Received	All handbooks, one complete set of $(CE)_2$ forms and materials, NIE and NWREL brochures and information packets	All materials as reproduced or new ones	
Materials Used	All	All	The director has read, used, cut/pasted almost everything we've sent; he has used them almost as is

HILLSBORO

	1974-75 Action	1975-76 Plans	NWREL Observations
Advisory Board	No separate project advisory board was established; the existing district career education advisory board was used	No separate advisory is anticipated	The lack of a separate advisory board has had no apparent adverse effect on the program
School Staff	The "go" decision was made during the summer, so prior staff orientation was minimal; program staff has done a good deal of staff orientation work during the school year	Continue staff orientation through personal contacts and bulletins	Local school counselors could have used a better orientation to TOTAL
Students	Thirty-eight educationally disadvantaged students at maximum in January 1975; 23 in June 1975; students enrolled in groups of 7, beginning in October; potential or actual drop-outs, ages 14-19	Anticipate 50 students per year; broader range of ability; change from state to local funding eliminated the disadvantaged requirements	Incremental student enrollment has some real advantages; more individual attention, more staff time for development in the early going
Employers	Employer recruitment began in August 1974; 60 employers have participated during the 1974-75 school year	The employer network will be expanded as student enrollment increases	Employer support has been nearly unanimous; some initial misunderstandings with unions
Facility	The program is based in a regular classroom in the senior high school	Additional classroom space is available	No particular problems associated with inschool location
Funding	Program funded by state vocational education funds for disadvantaged students	Future funding from local funds	Funding restrictions skewed the student population but had no serious effect on program operation

N-6

	1974-75 Action	1975-76 Plans	NWREL Observations
Parents	Students were referred by teachers or counselors followed by individual parent contact from the EBCE staff	Same procedure	Parent involvement has been minimal
School Board Action	The school board was informed of the proposal for state funding; board approval followed the grant award.	In May 1975, the board voted to continue the program with local funding, contingent on passage of a September 1975 school tax levy	A thorough, positive evaluation report was an important convincer
Materials Received	One set of user handbooks and most $(CE)_2$ forms and materials were received		In the early stages, Hillsboro received little direct help from NWREL
Materials Used	$(CE)_2$ forms and materials were slightly revised and printed by the district; minimal use of user handbooks; same student evaluation instruments used as in the $(CE)_2$ program	Minor adaptations; thorough study of user handbooks this summer	

M-7

	1974-75 Action	1975-76 Plans	NWREL Observations
Advisory Board	An EBCE advisory board of parents, teachers, principals and counselors was appointed in January 1975; the board has been active in support of EBCE program implementation	Continue with students added	The advisory board has been an important but not crucial program component
School Staff	Presentations to high school staffs at Kennewick and Kamiakin were held in April 1975; staff reactions mainly from teachers who were experiencing declining enrollment in their elective classes	Scheduled staff visits to the EBCE program in operation; periodic information bulletins to all staff members	Increasing high school enrollment is an important factor in staff support; vocal support from both principals has also helped
Students	Student recruitment was implemented in early May 1975; the procedures: announcements in the school bulletin, periodic radio spots, 30-minute presentations to all sophomores and juniors, joint student/parent evening meetings; 38 students have enrolled with written parental permission	Same strategy with EBCE students assisting	Student recruitment was well organized and well excecuted; a good cross-section of students
Employers	Employer recruitment began in April 1975; 58 employers have agreed to participate; further employer recruitment awaits student assessment	Expand employer network as related to student	Strong Chamber of Commerce support has helped; the employer recruiter is well known and respected in the community

	1974-75 Action	1975-76 Plans	NWREL Observations
Facility	The old YMCA is available but lacks flexibility negotiations in process to use the very adequate teen center	Continue negotiations for suitable site if necessary	The old YMCA could cause image problems; teen center would be ideal
Funding	A program budget has been prepared and will be funded from local district funds; a proposal for state funds awaits decision	Include as regular part of district budget	The project director has a history of successful innovations and has a good deal of control over the instructional budget; both crucial factors
Parents	Parents and students attended evening orientation meetings in late May; applications and information brochures were furnished	Active parent involvement through regular parent conferences, parent meetings and parent representative on the advisory board	The joint parent/student meetings were most effective
School Board Action	Periodic progress reports were provided the board during the planning cycle; the board approved EBCE Fall 1975 implementation on May 27, 1975	Quarterly progress reports with a final evaluation report in July 1977	The school board respects the judgment of both the superintendent and the project director
Materials Received	Two sets of user handbooks one complete set of $(CE)_2$ forms and materials, NIE and NWREL brochures and information packets	Local adaptation, printing and distribution	

	1974-75 Action	1975-76 Plans	NWREL Observations
Materials Used	The Employer/Community Resources handbook and the Student Services handbook received extensive use; the staff anticipated extensive use of the Curriculum and Instruction handbook during summer planning; the Management and Organization handbook has been used as a reference; $(CE)_2$ forms and materials will be adapted and printed this summer; NIE and NWREL brochures and information packets were used in public information sessions and in student and employer recruitment	Anticipate similar use of adapted materials	The student recruiter and employer recruiter received minimal orientation; they found the user handbooks most helpful

KODIAK

	1974-75 Action	1975-76 Plans	NWREL Observations
Advisory Board	Formed April 17, 1975; responsibilities clearly defined	Continue	Minutes indicate active participation
School Staff	Briefed high/junior high staff	Continue staff orientation through bulletins and visitations	Some junior high staff hostility; may need to work hard at this level
Students	Twenty-five students; representative sample	Expand if appropriate	
Employers	Recruitment began in March 1975; to finish in August		
Facility	Plan to use facility near the high school		
Funding	Full funding from state department of education	Continue funding	Should start planning soon for move to "local funding"
Parents	Include on the advisory committee; signature required for student's entrance into program; orientation provided	Same	Because of the small size of the community there is easy access to parents; adequate
School Board Action	After several information sessions, board approved implementation late June		
Materials Received	All handbooks, one complete set of $(CE)_2$ forms and materials, NIE and NWREL brochures and information packets	All materials as reproduced or new ones	

	1974-75 Action	1975-76 Plans	NWREL Observations
Materials Used	All	All	Developing own set of competencies; some adjustments to materials on reading level
EBCE Staff Plans	1.0 Director 1.0 Learning Manager 1.0 Employer Relations Specialist 1.0 Student Coordinator	Expand if appropriate	

Appendix N

TABULATED RESPONSES TO THE EBCE MATERIALS USAGE QUESTIONNAIRES

Contained in this appendix are the tabulated responses to seven questionnaires developed to obtain feedback regarding the way in which EBCE materials were used and their perceived utility at five sites not having an entire EBCE program. These questionnaires were completed in April and May of 1975 and returned to NWREL for analysis. Questionnaire 1 was completed by the project directors in four of the five sites where the EBCE handbooks were pilot tested. Questionnaires 2, 3 and 4 were completed by the teacher or project staff member who supervised the use of the Exploration Packages, Student Journals, or Learning Site Analysis Form (LSAF). Questionnaires 6 and 7 were administered to a sample of six to ten students at several sites who had used either the Student Journal or the Exploration Package. Questionnaire 7 was administered to ten cooperating employers in Hillsboro and two each at Billings and Bethel who had participated in the use of the LSAF.

Information from these questionnaires has been shared with the EBCE implementation staff and materials use staff as input for future revisions of the materials and for consideration in future staff training.

1 GENERAL QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland[1]
1. Which EBCE handbooks did you use?[2]	(1)	(1)	(3)	(1)	
a. Management and Organization	✓		PD only		
b. Curriculum and Instruction	✓		✓	✓	
c. Employer/Community Resources	✓		✓	✓	
d. Student Services			PD only		
2. Was anything missing from the handbooks that you may have needed?	No	No[3]	No	No	
3. Do you have any criticisms or comments about the contents or organization of the handbooks?	Yes[4]	Yes[5]	No	Yes[6]	
4. Do you feel that you understand the EBCE philosophy?	Yes	Yes	Yes	Yes	

[1]Have not used the EBCE handbooks and did not respond to the questionnaire.
[2]Number of respondents in parentheses.
[3]More information on projects might be needed.
[4]Excellent format; easy to use for quick reference.
[5]In a few of the areas the language borders on the "jargon" side.
[6]There is no short concise overview or introduction.

GENERAL QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
5. Are other staff members that you interact with in other programs or in the regular school aware of your use of EBCE materials?	Yes	Yes	LM, ERS only	No	
6. Do you (does your program) have any specific interactions with other teachers or programs?	No	Yes[1]	ERS[2], PD[3] only	No	

[1] Senior business laboratory to some extent in the Jr. High classes on work experience.
[2] Exploratory Work Option-Mid High; Cooperative Work Experience Program; other teachers at Hillsboro Sr. High.
[3] Also career education director for the district. EBCE will impact all of career education in our district.

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland[1]
1. Why does your program use the Exploration Package?					
a. To record student perceptions of each employer site for other students who might want to go to that site			✓	✓	
b. To find out what students do at employer sites			✓		
c. To stimulate students to reflect on and evaluate their experience at the employer site	✓	✓	✓	✓	
d. To evaluate the employer sites themselves				✓	
e. To achieve specific Career Development objectives		✓		✓	
f. To help students make career/life decisions	✓	✓	✓	✓	
g. Other (specify)	✓[2]		✓[3]	✓[4]	
2. Who reviews and/or evaluates the completed Exploration Package? (check all which are applicable)					
a. Staff member (please specify role)	ERS, LM	✓[5]	FRS, LM	✓[6]	
b. Other students					
c. Employer instructor	✓				
d. No one					
e. Other (specify)				✓[7]	

[1] Did not respond to the questionnaire even though they used the exploration package.
[2] To guide the student on the exploration.
[3] Provides writing experiences for students (by design)
[4] To help students obtain a positive self-image.
[5] Business Education Coordinator and Career Education Coordinator
[6] Combination of positions.
[7] Students themselves.

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
3. What are the criteria or standards of completeness and quality which are used to judge the acceptability of Exploration Packages? (check all which are applicable)					
a. There are no specified criteria					
b. There is a time limit for completion which is _____	two weeks		✓[1]	✓[2]	
c. Certain quality minimums must be met such as _____	all areas completed		✓[3]		
d. Certain completeness minimums must be met such as _____			all items completed	✓[4]	
e. Each student is judged on different criteria		✓			
f. Other (specify)					
4. What happens to the completed Exploration Packages after they have been accepted as satisfactory? (choose one)					
a. They are given back to the students			✓	✓	
b. They are put on file accessible to the students and staff	✓	✓		✓	
c. They are given to the employer instructor					
d. They are put on file accessible only to staff members					
e. They are put on file accessible only to the employer relations specialist					
f. Other (specify)					

[1] One week after finish of exploration
[2] One week
[3] Neatness, a full page summary, all items in package completed
[4] Booklets from company, type of business, description of business

N-5

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
5. Who must complete the Exploration Package? (choose the best answer)					
a. Each student, (how many) ___times a year					
b. Each student, at each employer/community site explored	✓	✓	✓		
c. Each student, at each site not previously explored by some other student					
d. Only selected students based on the following criteria _____				✓[1]	
e. Students have the option of whether or not they wish to complete the Exploration Package					
6. Approximately how many Exploration Packages have been completed by students in your program to date?	2	12	112	50	
7. Have you changed the contents or procedures for using the Exploration Package? ___No ___Yes - In what ways have you changed the Exploration Package or its use? (Please attach a copy of the revised instrument or instructions.)	No	No	Yes[2]	No	

[1] This year was a pilot program-so just selected students-based on maturity.

[2] We are planning to revise our package this summer. We need to create more of a checklist plan acceptable to our great number of poor readers. We can supply a copy of this when we have completed it.

N-6

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
8. What effects, either positive or negative, have the Exploration Packages had on students or on the program?	√[1]	√[2]	√[3]	√[4]	
9. What difficulties have you experienced with, or reservations do you have about, the Exploration Package?	√[5]	None	√[6]	None	

10. How effective do you feel the Exploration Package has been in: (circle one number for each statement)

Ineffective 1 2 Moderately Effective 3 4 Very Effective 5

a. Stimulating student interest in various careers?	4	5	2	4
b. Focusing students' explorations of careers or employment sites?	5	4	3	4
c. Helping students match their interests and abilities with characteristics of the career being explored?	3	3	4	5
d. Other outcomes (please specify)			5[7]	4[8]

[1] This is a good way to get students to pin-point their interests.
[2] Required students to examine more closely why they were involved in the program.
[3] The effects are generally positive--they ask students to inquire, make comparisons, consider values and interests, discover job requirements, etc.
[4] Positive: students were able to view several businesses; negative: we went in groups--so did appear somewhat like a field trip.
[5] Having students responsible to set up time and meet with employers.
[6] As I've already indicated, we need design a package which can be used effectively by poor readers.
[7] Asking questions at job sites rather than just standing around.
[8] Again--the positive self-image.

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
11. Do you feel you had sufficient training/ preparation to help facilitate students in their use of Exploration Packages?	Yes	Yes	Yes	No	
12. How long are students on site for each exploration activity? (check one)					
a. Usually less than three days					
b. Usually three to five days	✓		✓		
c. Usually more than five days					
d. Varies considerably with student and job site		✓			
e. Other (specify)				[1]	
13. How are student activities monitored at employer sites? (check all which are applicable)					
a. Most student behavior monitored by employer instructor	✓		✓	✓	
b. Employer relations specialis makes checks during each exploration activity	✓				
c. There is no formal monitoring system		✓			
d. Other (specify)					

[1] The group spent usually one day.

2 EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
14. How are sites recruited for student use on explorations?	√[1]	√[2]	√[3]	√[4]	
15. Do you have any formal employer training procedures? ___No ___Yes - What are they?	No[5]	No[6]	Yes[7]	No	
16. Do you feel the cooperating employers have an adequate understanding of the purposes and procedures involved in job explorations?	Yes[8]	No[9]	No[10]	No[11]	
17. How is student transportation to employer sites handled? (check all which are applicable)					
a. School bus or student van		Van	Bus		
b. Public transportation	✓	✓			
c. Student cars	✓	✓			
d. Staff cars				✓	
e. Other (specify)					

[1] ERS recruits sites setting up explorations.
[2] Coordinator of Career Education and Business Education teacher determine the various sites used.
[3] Personal or telephone contact is made by Community Coordinator (ERS).
[4] Sites this time were chosen by the staff.
[5] We are currently in the process of setting this up.
[6] However, we are planning to develop a procedure.
[7] The Community Coordinator's (ERS's) background is in vocational education, work experience programs, diversified occupations, etc.
[8] Not yet!
[9] As far as can be determined.
[10] This we intend to resolve.
[11] Not at this point.

6-N

2

EXPLORATION PACKAGE QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
18. Do you plan to have students use Exploration Packages next year? ___No - Why not? ___Yes - How will they be used and with which groups of students?	Yes[1]	Yes[2]	Yes[3]	Yes[4]	

[1] As an introduction to $(CE)_2$ and with all students.
[2] Senior business--Jr. High--Alternative Education.
[3] They will be used with all students on exploration sites. As indicated earlier, the package is going to be rewritten.
[4] Packages will be used by students on an individual basis--Sophomores, Jrs. and Srs.

N-10

3 JOURNAL QUESTIONNAIRE

	SITES				
	Billings[1]	Bethel[1]	Hillsboro	Vancouver	Portland[1]
1. What are the main reasons your program uses the journal?					
a. To facilitate student self-examination			✓	✓	
b. To develop students' basic skills in writing (spelling, grammar, organization, etc.)				✓	
c. To improve student ability to use writing for self-expression and communication			✓	✓	
d. To facilitate student/staff dialogue			✓	✓*	
e. To monitor personal changes which might affect program performance			✓		
f. To identify students' vocational preferences				✓	
g. To monitor students' routine and daily activity					
h. To look at program impact on students				✓	
i. To identify student activity at employer sites					
j. To diagnose students' communication deficiencies				✓	
k. Other (specify)				✓[2]	
2. Which students write in the journals? (check one)					
a. All students				✓	
b. Students who volunteer to do so					
c. Selected students with special problems					
d. Those students with a need for this communication communication mechanism			✓		
e. Other (specify)					

[1]Have not yet used the journal.

[2]To help students obtain control of their lives--an organizing device.

N-11

3 JOURNAL QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
3. How often do those students mentioned in (2) above write in their journals? (check one)					
a. Daily				√[1]	
b. Every other day				√[1]	
c. Once a week					
d. Once a month					
e. Irregularly, more than once a week on the average			√		
f. Irregularly, less than once a week on the average					
g. Other (specify)					
4. How often are the journals read by the staff? (check one)					
a. Daily					
b. Weekly				√	
c. Biweekly					
d. Monthly					
e. Irregularly			√		
f. Other (specify)					
5. Who decides what subjects the students will write about in the journal? (check one)					
a. The student			√		
b. A staff member (specify role)					
c. Sometimes the student and sometimes a staff member					
d. The student and staff member together				√	
e. Other (specify)					

[1] Depends on the activity.

3 JOURNAL QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
6. For whom is the journal written (i.e., who reads it?)? a. The entire staff and all students b. The entire staff only c. Only the following staff member(s) (specify role) d. Only for the student himself e. Other (specify)			√[1]	√[2]	
7. What kind of feedback, if any, is given students on what they have written in the journal?			√[3]	√[4]	
8. What effect, either positive or negative, has the journal had on students or on the program?			√[5]	√[6]	
9. How effective has the journal been for most students? (circle one) Ineffective 1 2 Moderately Effective 3 4 Very Effective 5			2	4	

[1]Student Coordinator
[2]Only Sue Cooper who has a combination of positions.
[3]Usually subjective reactions in the form of counseling.
[4]This staff member responds by writing a return paragraph in the journal.
[5]Mostly a positive effect on those who used it as a communicative device.
[6]Establish a trust and caring and concern of a staff member for each student.

3 JOURNAL QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
10. What consequences, if any, occur if students do not meet program requirements for journal completion?			none at this time	√[1]	
11. Have you changed the contents or procedures for using the journal? ___No ___Yes -- If yes, in what ways have you changed the journal? (Please attach copy of the revised procedures if possible.)			No	No	
12. What difficulties have you experienced with, or reservations do you have about, the journal?			√[2]	None	
13. Do you feel that you had sufficient training/ preparation for facilitating student use of journals? ___No ___Yes			No	No	
14. Do you plan to use the journals next year? ___No - If no, why not? ___Yes - If yes, how will they be used and with what groups of students?			Yes[3]	Yes	

[1] First, a reminder; second reminder-this was all that was necessary.
[2] More elaborate orientation on use of journal and its concept for students is needed at the beginning; not sure of how to implement it as a rewarding or useful tool for students.
[3] Most likely it will be used with all students, but not strictly in the form of necessity and more in the direction of open communication.

4 LSAF QUESTIONNAIRE

	SITES				
	Billings	Bethel[1]	Hillsboro	Vancouver[1]	Portland[1]
1. What is your primary role in the program?					
a. Administrator					
b. Teacher (facilitator, learning manager)					
c. Counselor or student coordinator					
d. Employer relations specialist	✓		✓		
e. Resource specialist					
f. Other (specify)					
2. Did anyone besides yourself collect information with the LSAF? ___No ___Yes (specify name and role)	No		No		
3. Why was the LSAF used? (check all of those which are applicable)					
a. To develop a network of community sites (i.e., as a recruitment tool)	✓				
b. To more clearly assess the learning potential of community sites	✓		✓		
c. To recruit community sites with particular learning resources	✓				
d. To gather information to train employer instructors.			✓		
e. To clarify for employer instructors the kinds of help they can give students	✓		✓		
f. Other (specify)					

[1]Have not yet used the LSAF.

N-15

4 LSAF QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
4. At what time is the LSAF normally completed?					
a. During recruitment	✓				
b. When a student requests an exploration of that site					
c. When a student requests a learning level at that site			✓		
d. When an employer requests					
e. Other (specify)					
5. How many community sites are involved in your program?					
a. Less than 6 sites					
b. 6 to 10 sites					
c. 11 to 20 sites					
d. 21 to 40 sites					
e. 41 to 60 sites			✓		
f. Over 60 sites	✓				
6. How many community sites have been analyzed for their learning potential with the LSAF?					
a. Less than 6 sites	✓				
b. 6 to 10 sites					
c. 11 to 20 site					
d. 21 to 40 sites			✓		
e. 41 to 60 sites					
f. Over 60 sites					

4 LSAF QUESTIONNAIRE

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
7. Have you changed the LSAF or how it is used? (See pp. 115-116 and 129-131 of the Employer/ Community Resources handbook for intended uses and pp. 215-228 for a sample LSAF completed form.)					
No	✓				
Yes - How did you change it and why? (Please attach a copy of the revised LSAF.)		✓[1]			
8. Is the information obtained through the LSAF shared with other programs (e.g., Cooperative Work Experience Program)?					
No					
Yes; with which programs?	✓[2]		✓[3]		

[1] We felt our revised LSAF would be utilized more and that our employers would understand it better (copy attached to questionnaire).
[2] Cooperative Education-Work Study
[3] Work Experience Programs, Exploratory Work Option; teachers in district to use as a tool in relating their subject areas to different careers.

N-17

5 JURNAL QUESTIONNAIRE (Students)

	SITES				
	Billings[1]	Bethel[1]	Hillsboro[2]	Vancouver[3]	Portland[1]
1. How often do you write in your journal? (check one)					
a. Daily				✓	
b. Twice a week			3		
c. Once a week			1		
d. Less than once a week			4		
e. Never					
2. Please circle the number next to each of the following statements which best describes your feelings about the journals. 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree					
a. I dislike writing in the journal					
1			1		
2				✓	
3			5		
4			2		
5					
Mean			3.00	2.00	
b. Writing in the journal has helped me learn to write better					
1			3		
2					
3			4		
4				✓	
5			1		
Mean			2.50	4.00	

[1]Did not use the journals.
[2]Eight students completed the questionnaire.
[3]One staff member read the journals and filled out a master questionnaire giving generalized data.

N-18

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
c. Writing in the journal has helped me to learn more about myself					
1			1		
2			1		
3			4		
4			2		
5					
Mean			2.88	4.00	
d. Writing in the journal has helped me to express my feelings better					
1			1		
2			1		
3			2		
4			2	✓	
5			2		
Mean			3.38	4.00	
e. Writing in the journal has helped me to communicate better with the staff					
1			2		
2			2		
3			2		
4			1		
5			1	✓	
Mean			2.62	5.00	
f. Writing in the journal has helped me understand the need for good self-expression					
1					
2			2		
3			4	✓	
4			1		
5			1		
Mean			3.12	3.00	

N-19

5 JOURNAL QUESTIONNAIRE (Students)

	Billings	Bethel	Hillsboro	Vancouver	Portland
g. Writing in the journal is not very useful					
1			1		
2			2	√	
3			3		
4			1		
5			1		
Mean			2.88	2.00	
3. What have you liked most about the journal?			√[1]	√[2]	
4. What have you disliked most about the journal?			√[3]	√[4]	
5. When did you enter this program? (Month; Year)				√[5]	

[1]--Nothing. (2)
--You can say anything you want.
--To express myself better.
--A chance to express my feelings.
--I'm not forced to write if I have nothing to say.
--You know what you did in the past.
[2]Sharing with another person.
[3]--Nothing. (2)
--Writing.
--Have to do it when you have other things to do.
--I am never helped when a problem occurs.
--I could take my time but it's kind of boring.
--I can't write fast enough to put down my zooming thots (sic).
[4]The time it takes to put things down on paper.
[5]February, 1975.

N-20

6 EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel[1]	Hillsboro[2]	Vancouver[3]	Portland[4]
1. How many different employer sites have you explored since January 1975? (check one)					
a. None					
b. One		1			2
c. Two or three		5	5		3
d. Four or five		1	3	✓	1
e. More than five			2		
2. How many Exploration Packages have you completed?					
a. None					1
b. One		5			4
c. Two or three			6		
d. Four or five		1		✓	1
e. More than five					
f. Did not answer		1			
3. Approximately how many Exploration Packages have you read which were completed by other students? (check one)					
a. I am not allowed to look at other students Exploration Packages			1		1
b. None		6	5		4
c. One			1		1
d. Two or three			2	✓	
e. Four or five			1		
f. Six or seven					
g. Eight to ten					
h. More than ten					

[1] Seven students completed the questionnaire.
[2] Ten students completed the questionnaire.
[3] One staff member read the Exploration Packages and filled out a master questionnaire giving generalized data.
[4] Six students completed the questionnaire.

EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
4. Please circle the number next to each of the following statements which best describes your feelings about the Exploration Package. 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree					
a. I dislike completing Exploration Packages					
1			1		1
2		2	1	✓	2
3		1	5		1
4		3	2		1
5			1		
DNA		1			1
Mean		3.17	3.10	2.00	2.40
b. Exploration Packages help me focus my activities during a job exploration					
1			1		
2			3		
3			3		3
4		5	3	✓	1
5		1			
DNA		1			2
Mean		4.17	2.80	4.00	3.25
c. Exploration Packages help me match my interests and abilities with careers I am exploring					
1			1		
2			2		1
3		1	2		2
4		4	4	✓	
5		1	1		1
DNA		1			2
Mean		4.00	3.20	4.00	3.75

EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver[1]	Portland
d. Exploration Packages help me better understand the jobs I explore					
1			2		1
2			1		
3			2		
4		5	3	✓	
5		1	1		2
DNA		1	1		3
Mean		4.17	3.00	4.00	4.60
e. Exploration Packages completed by other students give me a "sneak preview" of jobs or sites I want to explore					
1					1
2			1		1
3			6		
4		1	3		1
5		5			
DNA		1			3
Mean		4.83	3.20		2.33
f. Exploration Packages take more time to complete than they are worth					
1			1		
2		4	2	✓	1
3		2	4		1
4			1		1
5			2		1
DNA		1			2
Mean		2.33	3.10	2.00	3.50

[1] Did not respond to question 4e.

EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
g. Exploration Packages have helped me decide which jobs I like or don't like					
1			2		1
2			3		
3			2		1
4		4	3		1
5		2			1
DNA		1			2
Mean		4.33	2.60	5.00	3.25

5. What do you like most about the Exploration Package? ✓1 ✓2 ✓3 ✓4

[1]--Assist in analyzing the jobs visited.
--Be able to define likes and dislikes about job.
--Find out what job had to offer in comparison to interests.
--Better understanding of job.
--Help give perspective about job.
--Help in deciding good and bad about job. Especially helpful when applying for first few times.
[2]--Nothing. (3)
--About my interests.
--The write-up about the place--I like to express my feelings.
--Taking pictures.
--They help the teacher know what we are doing.
--Helps me know more about my job and what I like best.
--Helps me to explore more kinds of jobs and what's best for me.
[3]--The time away from the classroom.
[4]--It helps me a little.
--You get to know more about jobs.
--I liked the J.D.H. (???).
--Nothing.

EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
6. What do you like least about the Exploration Package?		√5	√6	√7	√8

5
--Blank. (4)
--Time.
--Don't like to write.
--Do not like to complete things about what I don't like.

6
--Nothing. (2)
--Everything. (2)
--Writing. (2)

7
--Takes a while to complete it.

8
--The transportation problem.
--Too much work and not enough time.
--The work you sometimes don't understand.
--I like it all.
--Filling it out.

	SITES				
	~~Billings~~	Bethel	Hillsboro	Vancouver	Portland
7. What suggestions do you have for improving the Exploration Package?		√1	√2	√3	√4

1 --Blank. (6)

2 --None.
--None. (2)
--Make them shorter.
--Make those fill-ins easier to understand.
--Make it more worthwhile.
--Nothing.
--OK as it is now.
--Don't make them.
--Make a different one.

3 --More one-on-one--personal contact

4 --None.
--Leave out the before and after stuff.
--Terminate it
--Going a little more places.

6 EXPLORATION QUESTIONNAIRE (Students)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
8. When did you enter this program?					
Month _____ Year _____		√[5]	√[6]	√[7]	√[8]

[5]--Blank. (4)

[6]--March, 1975. (3)
--September, 1974.
--December, 1974. (3)
--January, 1975. (2)
--March, 1975.
--April, 1975. (2)

[7]--Noninterpretable answer.

[8]--February, 1975.
--September, 1973. (3)
--June, 1975.
--?? (2)

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7 LSAF QUESTIONNAIRE (Employers)

	SITES				
	Billings[1]	Bethel[1]	Hillsboro[2]	Vancouver[3]	Portland[3]
1. What involvement did you have in collecting information for the Learning Site Analysis Form (LSAF)?					
a. I did not participate at all			1		
b. I participated only by reviewing the completed LSAF and verifying its accuracy	2				
c. I cooperated with a program staff member in completing the LSAF		2	9		
d. I completed the LSAF myself					
e. Other (specify)					
2. Do you feel that you understand the purposes of the LSAF?					
Yes	2	2	10		
No					
3. Does the information recorded by the LSAF about your site coincide with your perceptions about the learning potential of your site?					
Yes	2	2	10		
Don't know					
No (please explain)					

[1]Two employers completed the questionnaire.
[2]Ten employers completed the questionnaire.
[3]Did not use the LSAF.

7 LSAF QUESTIONNAIRE (Employers)

	SITES				
	Billings	Bethel	Hillsboro	Vancouver	Portland
4. Did you learn anything about your site because of the LSAF which you were not aware of previously?					
No			8		
Yes (please explain)	2[1]	2[2]	2[3]		
5. What effect, if any, has the LSAF had? (check as many as apply)					
a. It has changed the way I deal with students	1		4		
b. It has suggested changes to company hiring practices			1		
c. It has changed employee training/education efforts	2	2	4		
d. It has changed the company's self-image as a community learning resource	1		3		
e. It has had no effect		1			
f. Other (specify)			1[4]		

[1]--Helped point out the step-by-step procedure of my assembly operation which gave me a time/motion study to measure production of my workers.

[2]--Helped me write job descriptions for my crew which I had been putting off.

[3]--It makes you more aware of the potential learning that can be accomplished at your business.

[4]--Make me realize the vast variety of areas in which a technician must have knowledge.

--An effort of great merit--should be expanded.